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AUTHOR Jess, James D.
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ABSTRACT

The 1971 Iowa School Foundation Plan for Financing Education was created to achieve goals of quality education, equity in financing education, efficiency, evaluation of local districts and the state system, and local flexibility. To analyze Iowa's success in meeting those goals, information gathered from 18 rural school districts and data from the State Department of Public Instruction was used. Student, teacher, and parent satisfaction was measured through questionnaires, with districts divided into those with less than 750 students, 1,000-1,999 students, and two countywide units. Quality was assessed by student retention, student participation, graduate productivity, citizen satisfaction, and parent willingness to finance schools; smaller districts led the field. In equity, Iowa is fourth in the nation in expenditure equity, and tax equity is progressing. Efficiency (what is received for dollars spent) proved greater in smaller districts (higher per pupil costs); they had better retention, daily attendance, school pride, and parental satisfaction. Evaluation and local flexibility have not been improved. Findings support decentralization of larger units rather than the proposed consolidation of smaller units, and suggest more political and educational attention and credit to Iowa's smaller rural districts for offering quality educational opportunities. (RS)

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QUALITY, EQUITY, EFFICIENCY, EVALUATION, AND LOCAL FLEXIBILITY: THE POLITICAL AND EDUCATIONAL DILEMMAS OF IOWA'S FOUNDATION PLAN

An abstract of a dissertation by
James D. Jess
July 1977
Drake University
Advisor: Dr. James Halvorsen

During the 1970's the State of Iowa has exercised a high degree of budget control over its public elementary and secondary schools. Five guiding principles, developed by the Governor's Educational Advisory Committee for improving education for Iowans, led to the development of the Foundation Plan and has since provided the basis and the support for State legislative and executive action to meet the educational responsibility to its citizens. Voluntary reorganization, causing a drastic reduction in the number of districts, was to have occurred, and a mandatory reorganization law is now being considered.

The problem. The primary task was to develop a definition for quality education to be used for comparing programs being offered in different size rural school districts. The second task was to show what progress has been achieved on a statewide basis toward providing tax and expenditure equity. The third task was to define efficiency and to determine if the State's insistence upon efficiency has brought about major voluntary reorganization. The fourth task was to look at the problem of providing citizens with meaningful evaluation of local districts. The fifth task was to define local flexibility, to show what flexibility(ies) exist within the Foundation Plan, and to illustrate to what extent schools have opted to use them.

Procedure. The review of related literature presents an historical study of the theoretical development of state finance plans, the court's influence on finance reform, and authoritative views on quality, efficiency, and local flexibility. Forty-three items of data were collected on each of the eighteen randomly selected rural school districts from State Department of Public Instruction reports and through administering student, teacher, and parent survey instruments (designed by the researcher to reflect elements of satisfaction viewed by authorities as being important) to selected populations within each district. The districts were grouped into categories of three sizes. ANOVA tests were used to determine if there were significant differences in levels of satisfaction by size; t-tests for determining where differences existed; z-tests for determining where significant differences existed in average daily attendance and student participation in extra-curricular activities; and Pearson correlation tests for determining correlations between size and

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the other variables of educational input and output. A correlation matrix table was used to illustrate the intercorrelations among all variables. Conventionally accepted levels of probability were used throughout the study for determining significance.

Findings. (Quality) The output of an educational program best reflects its quality. School district quality can be measured in terms of student retention, student participation, graduate productivity, citizen satisfaction, and parent willingness to financially support schools. Students in districts with below 750 enrollments expressed higher levels of satisfaction with their schools. Teachers in those districts expressed a higher level of satisfaction than did teachers in districts of 1000-1999. Larger districts displayed the following significant characteristics: They offered their students more units; paid their teachers higher salaries; and had lower costs per pupil. Smaller districts had smaller pupil-teacher ratios; greater student retention rates; knew a greater percentage of the graduates' status; had higher levels of student satisfaction because of teacher assistance and personal interest, and their recognition for school accomplishments; had higher levels of parent satisfaction with their school, their children's opportunities in extra-curricular activities, and a greater willingness to vote for increased school taxes. Statewide data revealed that rural districts in smaller size cohorts have lower dropout rates; higher graduate productivity in terms of employment percentages and percentage of graduates going on for post-secondary training; and higher standardized achievement scores in the 70th, 80th, and 90th percentiles. Smaller schools had greater student participation in extra-curricular activities. (Equity) Iowa is the fourth most equalized state in the union in terms of expenditure equity and substantial progress has been made toward achieving tax equity. (Efficiency) Efficiency must be measured in terms of what is being received for dollars spent. Higher per pupil cost districts characteristically had higher student retention rates; higher average student daily attendance; greater student pride in their school; and higher levels of parent satisfaction with their school and that their tax dollars were being put to good use by their schools. (Evaluation) The State basically collects input data on schools for purposes of evaluating them. In terms of quality output, citizens have no better knowledge today than they did five years ago concerning the relative standing of their district. (Local Flexibility) Local flexibility must be associated with local budget control. Iowa's plan provides for a limited additional enrichment tax. Six schools, all with enrollments below 350 and having an eighty percent local effort support, have elected to use this means of local budget flexibility.

Conclusions. Based upon the results of this study, Iowa's smaller rural school districts deserve more political and educational attention and credit for offering quality educational opportunities to their students. Alternatives to reorganization should be considered in order to preserve the positive things that are coming out of these districts. The findings would support a movement toward the decentralization of larger units rather than the consolidation of smaller units.

QUALITY, EQUITY, EFFICIENCY, EVALUATION, AND LOCAL FLEXIBILITY
THE POLITICAL AND EDUCATIONAL DILEMMAS OF
IOWA'S FOUNDATION PLAN

A Dissertation

Presented to

The School of Graduate Studies

Drake University

In Partial Fulfillment

of the Requirements for the Degree

Doctor of Education

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by

James D. Jess

July 1977

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Chapter 1

INTRODUCTION

The framers of the United States Constitution did not specifically delegate education as one of the responsibilities of the United States. As a result, education has been interpreted as a responsibility reserved to the state and its people.[1]

The Iowa Constitution gives the state legislature an unusually high degree of authority over its public schools. The legislature has used this authority extensively since 1967 by adopting a series of finance reforms which has reversed the state's historic role as a minor partner in funding education. A decade ago state aid comprised nineteen percent of Iowa's statewide public school budget and local property taxes provided virtually all of the remainder. Today the situation is drastically different. State aid makes up more than fifty-three percent of the statewide public school budget and local property taxes only about forty-one percent.[2] Along with this increase in state

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[1]Office for Planning and Programming, State Planning Division, The Iowa School Foundation Plan (Des Moines, Iowa: State Government Printing Office, 1973-74), pp. 1-2.

[2]The Legislators' Education Action Project, National Conference of State Legislatures, An Assessment of the Tax and Expenditure Equity of Iowa's School Finance System (Washington, D.C.: Government Printing Office, February 23, 1976), p. I-1.

funding has come the increase in state control over regulating local school districts and their budgets.

The following quotation from The Iowa School Foundation Plan provides insight into the development of the principles used to guide Iowa's educational responsibility to its citizens:

> Subsequent to a statewide Governor's Educational Conference in 1969, a governor's Educational Advisory Committee of interested citizens was appointed for a two-year study and analysis of the educational needs in the State and recommendations on how such needs should be met.
>
> Their comprehensive report, Improving Education for Iowans, Final Report 1971, was the outgrowth of the study. Sixty-nine recommendations with rationale for such statements were included in the publication. One section dealt with the State's role in financing education at the elementary and secondary level. The stated rationale for such a role and the ensuing recommendations provided basis and support for the legislative and executive action taken by the state in establishing an Iowa Foundation Plan for Financing Education.
>
> The committee established the following five basic principles for guiding Iowa's educational responsibility to its citizens:
>
> 1. The State should insure that all students have equal access to a quality education. No student should receive less than a quality education because he happens to live in a district with below average property or income resources.
>
> 2. The State should provide for equity in financing education. Just as no student should be penalized for living in a poor district, no taxpayer should be penalized with inequitably high taxes. ...A long-term plan for school finance should maintain a balanced contribution from property and non-property tax sources. At least half of the cost of schools should be borne by growth taxes earmarked for this purpose. In addition, annual increases in school costs should be kept

within the annual growth of the tax base in Iowa, thereby avoiding continual increases in tax rates.

3. The State should insist upon efficient operations of local school districts. (A major shift in school organizational structure was detailed.)

4. The State should provide for continuous and widely reported evaluation of the local school districts and the State system in its entirety. All citizens of the State have a right to know the relative educational standing of their district and the state system.

5. The State should allow for local flexibility. Local citizens should be the final determinant of the priority they wish education to play provided that this additional support is raised entirely from local effort.[1]

In clarification of the third principle, the following three recommendations from Improving Education for Iowans are being cited:

Recommendation 19: The number of local administrative districts for elementary and secondary education in Iowa should be drastically reduced. The Committee feels that the new organizational structure should consist of county-like units except in situations where population or geographic conditions preclude this possibility.

Recommendation 20: The 64th General Assembly should create an Organizational Commission for Quality Education to thoroughly analyze and study the organizational structure of local school districts in Iowa. This Commission should plan a new structure for Iowa's schools to be submitted to the 65th General Assembly.

Recommendation 21: The General Assembly should declare a moratorium on new school construction and school reorganization. Proposed new school

---

[1]Office for Planning and Programming, op. cit., pp. 11-13.

construction or organizational changes should be required to gain Commission approval during the organizational period.[1]

The researcher is not questioning the significance nor the value of the five guiding principles established by the governor's committee which were used by the legislative and executive branches of Iowa's government to guide their development of the Iowa Foundation Plan for financing public elementary and secondary education. The researcher questions whether or not substantial progress toward achievement of the goals outlined in the five principles is being made under the Foundation Plan and if they are desirable goals.

PURPOSE OF THE STUDY

Iowa's present plan for financing education is in its fifty year of operation. After five years, to what extent is the State meeting its educational responsibility to its citizens in relation to the five principles established by the Governor's Educational Advisory Committee?

Are Iowa's children being insured equal access to quality education? Has anyone agreed on or determined what is meant by insuring equal access to quality education? Does the quality of education vary in different size school

---

[1]Governor's Educational Advisory Committee, Office for Planning and Programming, Improving Education for Iowans, Final Report 1971 (Des Moines, Iowa: State Government Printing Office, 1971), pp. 56-58.

districts?

Is equity being achieved within the Iowa plan? Are equal per pupil expenditures a desirable or necessary goal? Are Iowa taxpayers still being penalized with inequitably high taxes? Is property wealth a good base to use for determining district wealth? Should income and a district's ability to pay taxes be considered in determining school district wealth under the Foundation Plan? Are property assessment practices uniform throughout the State?

Have local school districts become more efficient in their operation under the Foundation Plan? Has it been determined what constitutes an efficiently operated school district? Has there been a major shift in the organizational structure of Iowa's public school districts during the past five years? Will the reorganization of Iowa's smaller rural school districts insure children greater access to quality education and bring about greater efficiency in school district operations?

Is continuous and widely reported evaluation of local school districts and the State system in its entirety being provided? What uniform criteria are being used for evaluating school districts in Iowa? Are citizens today provided with more evaluation data than they were five years ago about the relative educational standing of their districts and the State system in its entirety?

Does Iowa's plan provide for local flexibility? Are

local citizens able to make the final determination as to the priority they wish education to play in their district? If local flexibility exists, are any school districts using means of additional local effort to provide more financial support for their educational programs?

What are the general feelings of students, parents, and teachers toward their local rural schools? Do feelings differ among people who reside in districts of different enrollment size?

Not all of these questions can be answered in a single study. The purpose of this study is an effort to find some answers to these types of questions.

SIGNIFICANCE OF THE STUDY

A law to mandate the reorganization of small Iowa rural school districts is being considered by the 1977 Iowa Legislature in order to improve educational quality and provide for greater school district operational efficiency. A small district has been variously defined as having a K-12 enrollment below one thousand students, below 750 students, or one consisting of at least three hundred students. Others have said that any rural school district with less than a county-wide enrollment is considered to be small. Is size alone the determining factor for quality and efficiency? Hopefully, the information derived from this study will lend itself to encourage further research on this question and

the other questions that were mentioned earlier so that appropriate answers can be found and responsible solutions can be worked out.

A REQUEST TO THE STATE DEPARTMENT OF PUBLIC INSTRUCTION FOR ANSWERS

The State Superintendent of Public Instruction in Iowa is granted the power to exercise general supervision over the state system of public instruction, including the public and parochial elementary and secondary schools. He is responsible for making recommendations for educational standards and to develop, print and disseminate information and facts as necessary to promote among the people of Iowa an interest and knowledge in education.[1]

The initial step in conducting the research project was to contact the State Superintendent to obtain the State Department's definition of quality education in terms of the data they collect from all local districts for purposes of evaluating and reporting the quality of local educational programs.

A copy of the request to the State Superintendent of Public Instruction and his response are shown in Figures 1 and 2. As noted in his letter of response, at that time, there was no formal definition for quality education

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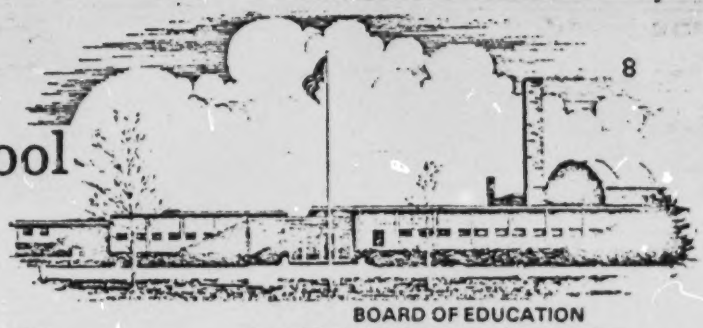
[1] Code of Iowa, Chapter 257.17 (1) and Chapter 257.18 (20).



CAL Community School

Coulter ● Alexander ● Latimer

P.O. BOX 458 LATIMER, IOWA 50452

ADMINISTRATION

James D. Jess, Superintendent
Phone (515) 579-6085

Leland J. Wise, Jr., Elementary, Jr. High Principal
Phone (515) 579-6086

Jeffry Sales, High School Principal
Phone (515) 579-6086

BOARD OF EDUCATION

George Richards, President
Percy Johansen
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November 18, 1975

Dr. Robert Benton, Superintendent
State Department of Public Instruction
Grimes State Office Building
Des Moines, Iowa 50319

Dear Dr. Benton:

I am in the process of developing a research project to test the effectiveness of Iowa's Foundation Plan for financing education. The project is specifically designed to study whether or not this plan is meeting Iowa's responsibility to its citizens with regard to insuring all students equal access to a quality education. As a focal point in the study, I am using the five guiding principles developed by the Governor's Educational Advisory Committee in their 1971 report. The 1973-74 publication, The Iowa Foundation Plan for Financing Education, quotes these five principles as providing the basis and support for the legislative and executive action taken by the state in establishing a foundation plan which would fulfill its educational responsibility to the citizenry of Iowa.

I am concerned at the present time with defining the following terms that are used in the wording of the five principles:

1. Equal access to quality education,
2. efficient operation of local districts, and
3. continuous and widely reported evaluation of local districts.

Figure 1

Letter to Dr. Robert Benton, Superintendent, Iowa State Department of Public Instruction

Figure 1 (Continued)

I would appreciate receiving from you the Department of Public Instruction's definition of quality education in terms of the data that the department collects from local districts for purposes of evaluating and reporting the quality of local educational programs.

I am having difficulty finding reported quality defined criterion information in your DPI publications. The data I am finding is of a program input nature such as: student enrollments, number of professional staff (including their educational degree status and salary), teacher loads, number of units offered, pupil/teacher ratios, and costs per pupil. These evaluative measurements of program quality appear to emphasize efficiency in terms of dollars being spent, rather than the quality output that is being obtained by students participating in the various local educational programs.

Thank you for your attention to my request. I would appreciate receiving a written reply at your earliest convenience so that I can continue with my study by including DPI defined quality criterion which has been used for previous evaluation measurement by the Department.

Sincerely yours,

CAL COMMUNITY SCHOOL

James D. Jess
Superintendent

JDJ/mjf

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GRIMES STATE OFFICE BUILDING • DES MOINES, IOWA 50319

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a place to grow

ROBERT D. BENTON, Ed.D., STATE SUPERINTENDENT
[illegible], Deputy Superintendent
RICHARD N. SMITH, [illegible], Director, SPECIAL EDUCATION

December 2, 1975

Mr. James D. Jess, Superintendent
CAL Community School System
Latimer, Iowa 50452

Dear Jim:

I am replying to your request for the definition used by the Department of "quality education" in terms of the data we collect from local school districts. I really can't give you such a definition. The statute requirements placed on school districts, which form the basis of the majority of the data we collect, do not directly reflect quality. There are many indirect inferences that can be made that would be legitimate but if we were really after "quality" we would be looking at students and student outcomes from the "education" they receive.

We basically collect the data established by the General Assembly for approval of schools--section 257.25 of the Code. These are minimum requirements, and "approval" in relation to them gives no more than a gross measure of quality, but it does allow the payment of state aid.

I would agree with the following statement in your letter:

> These evaluative measurements of program quality appear to emphasize efficiency in terms of dollars being spent, rather than the quality output that is being obtained by students participating in the various local educational programs.

I have a feeling that the General Assembly is more interested in "dollar efficiency" than student outcomes.

Sincerely yours,

Robert D. Benton

Robert D. Benton, Ed.D.
State Superintendent of Public Instruction

RDB/ba

Figure 2

Letter of Response

available; therefore, in order to continue with the research project a definition had to be developed.

ASSUMPTIONS

The writer is making several assumptions at the outset of the study. First, in the traditional sense, offering equal access to quality education has been thought to be accomplished if dollars being spent on education are equally distributed throughout the state on as near as possible per pupil basis. Second, quality in educational programming is often associated with factors of input such as: the number of students enrolled, the number of high school units offered, the salary and experience of the teaching staff, and the number of dollars being spent on a per pupil basis. Instead, quality educational programming should be associated with its factors of quality output. Third, the efficient operation of a local school district is best measured in terms of its program output in relation to its input, rather than based on program input alone.

The fourth assumption is that the evaluation of a human resource institution is difficult to perform because evaluation criteria is not generally agreed upon. Fifth, the concept of local flexibility and local budget control must go hand in hand in order to be meaningful and effectively operational. Sixth, the Iowa Legislature has worked hardest at trying to achieve tax and expenditure equity for the

state through its recent educational finance reforms. Seventh, the mood of Iowa's taxpaying public has changed with regard to their willingness to support their local school district budgets since the late 1960's. Finally, the local citizens of Iowa's rural school districts are generally satisfied with their schools, regardless of their size, and they oppose further school district reorganization.

STATEMENT OF THE PROBLEM

What is the current state of affairs for Iowa rural school districts operating under the Iowa Foundation Plan--a plan which was designed to accomplish the five purposes outlined in the principles established by the Governor's Educational Advisory Committee?

The first and major task of this study will be to determine what constitutes a quality education and compare the quality of education being offered in different rural school districts of varying enrollment size.

The second task will be to show what progress has been achieved on a statewide basis toward providing equity in financing education under The Iowa School Foundation Plan.

The third task will be to develop a definition for efficient operations of local school districts and to determine if the State's insistence upon efficiency has brought about a major shift in school district organizational structure since 1971.

The fourth task is to look at the problem of providing for meaningful evaluation of local school districts and the State system in its entirety and to describe what evaluative information is being collected by the State in order for citizens to know the relative educational standing of their district.

The fifth and final task will be to define local flexibility, to explain what flexibility(ies) exist within The Iowa Foundation Plan, and to what extent Iowa schools have opted to use these flexibility(ies).

LIMITATIONS OF THE STUDY

The research comparing quality educational programs is being limited in scope to the results found throughout Iowa in eighteen representative rural school districts of various size. All the districts except for the two county-wide school districts were participants in the 1976 Legislators' Education Action Project (LEAP) study which was contracted by the Iowa General Assembly. The two county-wide systems were asked to participate because they are the only two such systems presently in existence in Iowa. Only those school districts in the LEAP study with student enrollments below 750 and those with enrollments between 1000 and 1999 were asked to participate.

The quality and effectiveness of the school districts being studied will be limited to their current state of

affairs because no such comparative data exists for these eighteen school districts prior to their operating under Iowa's present Foundation Plan for financing education.

The findings of the study will be analyzed in view of the definitions developed through the literature for "equal access to quality education," "efficiency of school district operations," and "local flexibility."

The progress being made toward expenditure and tax equity under the Foundation Plan will be limited to the findings reported to the Iowa General Assembly in the LEAP study.

Unless statewide data is available and easily reported, conclusions from this study will be limited to the eighteen participating schools which make up the representative sample of Iowa rural districts.

The instruments used for measuring student, parent and teacher were constructed by the writer to reflect elements of satisfaction as viewed by authorities as being important. These instruments will not be pretested or validated before their use in this study

Chapter 2

REVIEW OF RELATED LITERATURE

INTRODUCTION

The review of related literature was written in five parts with a summary and/or conclusion of the material given at the end of each section or part. Part One gives the reader information concerning the early theoretical development of state plans for financing public school elementary and secondary education and a historical background of the court's influence on finance reform. The summary at the end of Part One gives a list of major policy issues developed by R. L. Johns[1] with respect to financing public schools that must be faced by every state legislature.

Part Two is a brief summary of the Iowa School Foundation Plan for financing Iowa's 449 public elementary and secondary school districts. A complete text of Chapter 442 of the Code of Iowa entitled "School Foundation Program" is included in the appendix.

The first principle established by the Governor's Educational Advisory Committee in regard to the State's role in the financing of elementary and secondary education stated

---

[1]R. L. Johns, "The Coming Revolution in School Finance," Phi Delta Kappan, LIV, No. 1 (September, 1972).

that "the State should insure that all students have equal access to a quality education." Their third principle stated that "the State should insist upon the efficient operation of school districts." Their fifth principle stated that "the State should allow for local flexibility." The writer felt that the terms used in describing these three principles required further clarification and definition. Part Three of this chapter, therefore, is an attempt to define: (1) Equal access to quality education, (2) efficient operation of local school districts, and (3) local flexibility. A summary and conclusion is given at the end of each section in part three.

Part Four concerns itself with the fourth principle established by the Governor's committee. The principle states: "the State should provide for continuous and widely reported evaluation of local school districts and the State system in its entirety." The literature explains the difficulty that arises in providing for meaningful evaluation on the local and statewide levels.

Part Five, the final portion of the review of related literature, concerns itself with the second principle established by the Governor's committee which states that, "the State should provide for equity in financing education." Part Five is a summary of the findings of the Legislators' Education Action Project which were presented in its February 23, 1976, report entitled, "An Assessment of the Tax and Expenditure Equity of Iowa's School Finance System."

PART I

HISTORICAL AND THEORETICAL DEVELOPMENT OF STATE PLANS FOR FINANCING EDUCATION

The history of state support for education is difficult to document before the latter quarter of the 1800's, even though some support was evident, especially at the elementary level, because state constitutions provided for such support. Tax supported secondary schools developed quite rapidly during the fourth quarter of the nineteenth century. Federal participation prior to 1900 had been quite limited outside the land grants or other special incentives provided by federal legislation.[1]

The modern era in school administration with emphasis on school finance was generated after the turn of the twentieth century by such theorists as Ellwood P. Cubberly, Harlan Updegraff, George D. Strayer, Paul R. Mort, and Henry C. Morrison. Their ideas and concepts appear to the writer to have had the greatest impact on the action of professional educators and legislators in the development of state plans for financing education in the United States.

The first of the early finance theorists was Ellwood P. Cubberly. In his doctor's dissertation at Teachers

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[1]Richard Dobbs Strahan, The Courts and the Schools (Lincoln, Nebraska: Professional Educators Publishing, Inc., 1973), p. 113.

College, Columbia University, in 1905 he proposed the following theory of state support:

> Theoretically all the children of the state are equally important and are entitled to have the same advantages; practically, this can never be quite true. The duty of the state is to secure for all as high a minimum of good instruction as is possible, but not to reduce all to this minimum; to equalize the advantages to all as nearly as can be done with the resources at hand; to place a premium on those local efforts which will enable communities to rise above the legal minimum as far as possible; and to encourage communities to extend their educational energies to new and desirable undertakings.[1]

Among Ellwood Cubberly's recommendations were the following:

1. That due to the unequal distribution of wealth, the demands set by the states for maintaining minimum standards cause very unequal burdens. What one community can do with ease is often an excessive burden for another.

2. That the excessive burden of communities borne in large part for the common good should be equalized by the state.

3. That a state school tax best equalizes the burdens.

4. That any form of state taxation for schools fails to accomplish the ends for which it was created unless a wise system of distribution is provided.[2]

Cubberly sought a plan of distribution that would reduce the extremes of financial inequality which was his

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[1]Ellwood P. Cubberly, School Funds and Their Apportionment (New York: Teachers College, Columbia University, 1905), p. 16.

[2]Johns, op. cit., p. 19.

specific objective and at the same time would be consistent with his overall aim of extending the range of educational programs. What he called his best plan for distribution of aid was a combination of a teacher-employed basis and aggregate days' attendance. Cubberly felt that this combination plan distributed aid on the basis of effort and need. He proposed that a reserve fund be established to provide equalization aid where the existing distribution was clearly inadequate. He did not advocate state support on the grounds of tax relief. A shift in state tax sources in Cubberly's time did not necessarily imply a reduction in use of the property tax, since state as well as local governments used this levy intensively. State revenues would be used to help districts pioneer new programs as well as help districts that could not provide minimum services at a maximum tax rate set by law.[1]

Charles Benson criticizes Cubberly's flat grant plan because he said that any program of reward for effort is inconsistent with the aim of equalization. He felt that if Cubberly had suggested that the per teacher grants had been related to the relative income level of the districts, with rich districts assigned a smaller grant per teacher than the

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[1]Charles S. Benson, The Economics of Public Education (Boston: Houghton Mifflin Company, 1968), pp. 154-159.

poor districts, he would have been able to provide a more equitable plan in the modern view.[1]

Cubberly's concepts of school finance had great influence on educational leaders and legislators during the first quarter of the twentieth century.[2] At least a quarter of the states were using essential elements of the Cubberly plan in the late 1950's.[3]

The next contribution to the theory of school finance was proposed by Harlan Updegraff of the University of Pennsylvania in a survey he made of the rural schools of New York State in 1921. He was the first theorist to propose that the wealth of his local school district be entirely eliminated as a factor effecting the quality of a child's education. In lieu thereof, he proposed that the state equalize educational opportunities with state funds, so that the total amount of revenue per teacher unit would be the same in all districts making the same effort, regardless of variations in wealth.[4]

In 1922 Updegraff and LeRoy A. King after completing

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[1]Ibid., p. 160.

[2]Johns, loc. cit.

[3]Paul R. Mort, Walter C. Reusser, and John W. Polley, Public School Finance (New York: McGraw-Hill Book Co., Inc., 1960), p. 258.

[4]Johns, op. cit., p. 20.

their Survey of the Fiscal Policies of the State of Pennsylvania in the Field of Education urged the adoption of what has become known as the "percentage equalizing grant." Under this plan the state government shares in supplying funds to meet a locally determined volume of school expenditures. It is like a flat matching grant except that the matching grant often is interpreted as meaning dollar-for-dollar matching, whereas under the percentage equalizing grant the states' share is different from one district to another--being low in rich districts and high in poor districts (this is the wealth equalizing feature).[1]

In writing of the percentage equalizing grant, Professor Erick Lindman has stated:

> The history of state support for education has many illustrations of "matching," "reward for effort," or "stimulation." This principle has been criticized because it has been frequently misused. If the state pays one-half the cost of a certain phase of the school program uniformly to all school districts throughout the state, two basic errors are committed: (1) There is a distortion of emphasis within the school program since the phase of the program which receives the fiscal rewards will draw local funds from the other phases of the program. (2) The less wealthy school districts will be unable to make the required local contribution and hence will be denied the benefit of the aid.
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> It is obvious, however, that the matching principle can be used without being subject to this criticism. If all phases of the school program were subject to the same matching provision, there would be no distortion of emphasis of the school programs. Furthermore, if the matching ratios are adjusted by an equalization formula so that relatively greater percentages of

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[1]Benson, op. cit., p. 162.

> state aid are granted to the less wealthy school districts, the second criticism is avoided. The advantage of the matching principle is that it assures continued local effort though state support is provided.[1]

According to Benson, the modern approach to state aid for education dates from the work of the Education Finance Inquiry Commission (1921-24). He states:

> As Professor Mort has written, two pages "almost hidden" toward the end of the commission's study for New York, prepared by George D. Strayer and Robert M. Haig, contain the conceptual basis of much of the present-day practice of equalization.[2]

The basic idea is sometimes referred to as the "Strayer-Haig formula," "foundation program plan," or "fixed-unit equalizing grant."

In their Commission Report George Strayer and Robert Haig said:

> There exists today and has existed for many years a movement which has come to be known as the "equalization of educational opportunity" or the "equalization of school support." These phrases are interpreted in various ways. In its most extreme form the interpretation is somewhat as follows: The state should ensure equal educational facilities to every child within its borders at a uniform effort throughout the state in terms of burden of taxation; the tax burden of education throughout the state be uniform in relation to taxpayer ability, and the provision for schools should be uniform in relation to the educable population desiring education. Most of the

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[1]Erick LeRoy Lindman, The Development of an Equalizing Matching Formula for the Apportionment of State School Building Aid (Seattle: University of Washington Press, 1948), pp. 7-8.

[2]Benson, op. cit., p. 160.

> supporters of this proposition, however, would not preclude any particular community from offering at its own expense a particularly rich and costly educational program. They would insist that there be an adequate minimum offered everywhere, the expense of which should be considered a prior claim on the state's economic resources.[1]

Strayer and Haig presented the following conceptual model of state support which incorporated the principles that they advocated:

1. A local school tax in support of the satisfactory minimum offering would be levied in each district at a rate which would provide the necessary funds for that purpose in the richest district;

2. The richest district then might raise all its school money by means of the local tax, assuming that a satisfactory tax, capable of being locally administered, could be devised;

3. Every other district could be permitted to levy a local tax at the same rate and apply the proceeds toward the cost of schools; but,

4. Since the rate is uniform, this tax would be sufficient to meet the costs only in the richest district and the deficiencies would be made up by state subvention.[2]

Strayer and Haig presented arguments against the reward for local effort advocated by Cubberly and later modified by Updegraff for the same reasons cited earlier by Benson.

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[1]George D. Strayer and Robert Murray Haig, The Financing of Education in the State of New York. Report of the Education Finance Inquiry Commission, Vol. I (New York: Macmillan, 1923), p. 173.

[2]Ibid., pp. 174, 175.

Paul Mort, one of Strayer's students, developed the technology for implementing the concepts proposed by Strayer and Haig. Although he was a technician, he was also a theorist and disseminator.[1] He proposed the following elements to be included in a state's guaranteed minimum program for state aid:

1. An educational activity found in most or all communities throughout the state is acceptable as an element of an equalizing program.

2. Unusual expenditures for meeting the general requirements due to causes over which a local community has little or no control may be recognized as required by the equalization program. If they arise from causes reasonably within the control of the community, they cannot be considered as demanded by the equalizing formula.

3. Some communities offer more years of schooling or a more costly type of education than is common. If it can be established that unusual conditions require any such additional offerings they may be recognized as a part of the equalizing program.[2]

Mort, his students, and students of his students have been great disseminators of the concepts of equalization. By 1971-72, forty-two states used some type of an equalization formula which allocated some state aid in inverse relationship to wealth per unit of need.[3]

Iowa's plan for financing education was developed around the concept of the Foundation Program Plan advocated

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[1]Johns, op. cit.

[2]Paul R. Mort, The Measurement of Educational Need (New York: Teachers College, Columbia University, 1924), pp. 6, 7.

[3]Johns, op. cit.

by Strayer and Haig and developed by Paul Mort.

The last important idea in the theoretical development of state support practices was advocated by Henry C. Morrison of the University of Chicago. His position, the concept of full state support for education, was developed in his book, School Review, in 1930. Morrison's views were unique for his time, but they sound less strange in the 1970's.[1] "He argued that local school support disequalized educational opportunity and that the equalization formulas proposed by Cubberly, Strayer, and Mort had failed to equalize educational opportunity and never would do so."[2] Only one state, Hawaii, has thus far adopted Morrison's plan of full state support for public education.

HISTORICAL BACKGROUND OF THE COURT'S INFLUENCE ON FINANCE REFORM

Many educators and lay people who have recently become aware of the school finance reform movement in the United States attribute it to judicial action. While court decisions provided a needed impetus, the movement did not begin in the courts. It began in society at large. The press for a more equitable school finance system was one more step in the

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[1]Benson, op. cit., p. 163.

[2]Johns, op. cit.

ongoing civil rights revolution which characterizes the 1970's.[1] When the movement entered the court system, it met with initial success. Court decisions brought greater awareness of the discrepancies and inequalities in school finance legislation. Those initial successes were later minimized by court reversals, but the early decisions helped fan the fires of reform enthusiasm.[2]

The pressures of reform from both civil rights forces and courts have caused legislators to establish commissions of lay persons to study their school finance systems and to make recommendations. These commissions generally used scholars to oversee the research efforts and to provide technical assistance.[3] The Governor's Educational Advisory Committee in Iowa studied, among other things, the state's finance system prior to 1971 and made its recommendations in its 1971 Final Report entitled Improving Education for Iowans.

Information received from commissioned studies throughout the United States have helped the general public, educators, legislators, and executives in government develop a

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[1]W. Frederick Staub, "Court Decisions and the Financing of Education," Theory Into Practice, April, 1972, p. 84.

[2]Robert J. Wynkoop, "Trends in School Finance Reform," Phi Delta Kappan, April, 1975, p. 542.

[3]Ibid.

keener awareness of the problems in school finance systems. This awareness, plus the desire to do what is right and the threat of future judicial action, have enabled legislatures to make some important school finance reforms. The first round of legislative reforms have been completed in some states and the second round is about to begin.[1]

The Iowa Finance Subcommittee of the Senate and House Education Committees sponsored a second study entitled An Assessment of the Tax and Expenditure Equity of Iowa's School Finance System. The study was contracted through the Legislators' Education Action Project. The study in Iowa was coordinated by William Wilken. Donald Phares of the University of Missouri was commissioned to study Iowa's revenue system; its nature and its implications for schools, in relationship to the state's present commitment to education. Guilbert C. Hentshke of the University of Rochester was commissioned to study Iowa school districts by using data supplied by the State Department of Public Instruction, the State Comptroller's Office and responses from a questionnaire administered to superintendents, board members, and teachers in fifty selected school districts throughout Iowa. The results of that study were reported to the Iowa General Assembly on February 23, 1976.

With regard to important historical court decisions

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[1]Ibid.

influencing school finance reform, the writer found that the early decisions dealt with the legal meaning of equality of educational opportunity. These cases involving educational issues stressed racial segregation and equality of opportunity. The Supreme Court decision of 1896 in the case Plessy v. Ferguson established the rule "separate but equal" in terms of services and facilities and this rule guided the federal courts for nearly sixty years. By this time the courts began to see that racially separate schools, especially on the university level, lacked certain intangible educational advantages even when their lives and physical facilities were equal to those of white schools. Among these intangible factors were the school's prestige, reputation among its alumni, and learning atmosphere. The inequalities could not be corrected simply by spending more money. The remedy was admission of black students to the white schools where these intangible advantages appeared to exist.[1]

In 1954, judicial examination of educational opportunity suddenly took a turn. The Supreme Court in its historic 1954 decision in the Brown v. Board of Education case in Topeka stated that education was the most important function of state and local government and the opportunity for an education, where the state undertook to provide it, must make

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[1]R. Stephen Browning and David C. Long, "School Finance Reform and the Courts After Rodriguez," School Finance in Transition, ed. John Pincus (Cambridge, Mass.: Ballinger Publishing Co., 1974), p. 83.

it available on equal terms.[1] The court held that racially separate public schools were inherently unequal and that it would no longer permit segregated schools. "It then became constitutionally required that public schools were to be racially balanced and integrated schools."[2]

During the 1960's it became apparent that the Brown decision would have no effect on the educational opportunities of the many minority students who would never have a chance to sit in integrated classrooms. In the mid-1960's new approaches to equality of educational opportunity were taken through state and federal legislation in their development of compensatory education programs. State programs varied from state to state. Federal programs included the Economic Opportunity Act of 1964 and the Elementary and Secondary Education Act of 1965.[3]

By the late 1960's, educators and students of constitutional law expressed an increasing awareness of the inequalities in state school finance systems and the great gap between the ideal of "equal educational opportunity" and its fulfillment in terms of any of its dimensions, especially for racial minorities and the poor. Their writing greatly influenced a series of law suits filed in the late 1960's

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[1]Ibid. [2]Ibid.

[3]Ibid., pp. 83-84.

challenging the constitutionality of state systems of financing schools on the basis of educational funds not being allocated on the basis of childrens' educational needs. The most publicized case, McInnis v. Ogilvie in 1969, was dismissed by a three judge federal court pronouncing that the plaintiffs had provided no standards for measuring "educational needs" and that it was, therefore, an unworkable directive for the courts, although a worthy guide for legislative policy makers. The Supreme Court summarily affirmed this decision without opinion.[1]

The failure to reform in McInnis led to the development of the "fiscal neutrality doctrine." It was developed by Coons, Clune, and Sugarman in their writing, "Educational Opportunity: A Workable Test for State Finance Structures." It contains a compelling argument as to the importance of the public schools, particularly to the children of the poor, in rescuing certain children from a socially and culturally depressed society. They argued that inequities in school finance systems violated the Equal Protection Clause of the Fourteenth Amendment.[2] The fiscal neutrality standard they discussed measured "wealth" by the value of a school district's

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[1] Ibid.

[2] John E. Coons, William H. Clune, and Stephen D. Sugarman, "Education Opportunity: A Workable Constitutional Test for State Financial Structures," 57 California Law Review, 1969, pp. 305-315.

tax base per pupil. And, since the property tax is the only tax the school districts in most states can levy, such wealth is usually measured in terms of a district's assessed property valuation per child. Thus, the fiscal neutrality theory, which measures wealth as local tax base per pupil available for education, was designed to challenge the unequal educational resources available to tax poor districts. It assumes that the quality of education is related to the amount of dollars spent and it requires the elimination of local taxable wealth as a determinant of a school district's expenditure.[1]

The persuasiveness of the Coons, Clune, and Sugarman analysis, and the utility of their proposed fiscal neutrality standard, were immediately apparent to a number of attorneys who had school finance cases pending when McInnis was decided adversely. Although one view was that McInnis signaled an early dismissal to school finance litigation, these attorneys incorporated fiscal neutrality in their pleading and made it their central constitutional theory.[2]

The two landmark court cases cited most frequently in the literature with regard to school finance systems are Serrano v. Priest and Rodriguez v. San Antonio Independent

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[1]Pincus, op. cit., pp. 85-86.

[2]Ibid.

School District. The writer will complete this portion of the paper with a discussion of the decisions rendered in these two important cases. Authoritative analysis of these decisions is voluminous. The writer has chosen to use views expressed by William Greenbaum, Ephraim Margolin, Richard Strahan, R. L. Johns, Max Rosenberg, Thomas Shannon, John Pincus, R. Stephen Browning and David Long.

Serrano v. Priest and Rodriguez v. San Antonio Independent School District are only two of a group of fifty cases tried for alleged violations of the Fourteenth Amendment and similar provisions of state constitutions that require a state to extend equal protection of laws to its citizens.[1]

In December of 1970 the Board of Education of the San Francisco Unified School District authorized the filing of a brief amicus curiae in the Supreme Court in Serrano v. Priest. Because of the far reaching implications of that case the brief was co-signed by every State Senator and Assemblyman from San Francisco.[2] The case was brought as a class action by a group of elementary and high school pupils and their parents against state and county officials concerned with the financing of public schools, asking for a

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[1]John Pincus (ed.), School Finance in Transition (Cambridge, Mass.: Ballinger Publishing Co., 1974), p. 10.

[2]Ephraim Margolin, "After Serrano," Emerging Problems in School Law (Topeka, Kansas: National Organization on Legal Problems in Education, 1972), p. 193.

declaratory judgment that the school financing scheme was unconstitutional and asking for injunctive relief. The California scheme was heavily dependent upon local property taxes, and variations in the wealth of a local district brought about wide disparities in local district expenditures.[1] The complaint in Serrano alleged wide disparities between California school districts in accessibility of funds and in actual spending of educational dollars. It alleged that local wealth limitations constrict both quality and availability of educational opportunities in the poorer districts.[2]

In a far reaching decision in August 1971, the court found that the scheme was invidiously discriminatory against the poor because it made the quality of a child's education a function of the wealth of his parents and his neighbors. The court further in the opinion stated, "Recognizing as we must that the right to an education in our public schools is a fundamental interest which cannot be conditioned upon wealth, we can discern no compelling state purpose necessitating the present method of financing." They concluded their opinion by stating "such a system cannot withstand constitutional challenge and must fall before the equal protection clause."[3]

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[1]Strahan, op. cit., p. 116.

[2]Margolin, loc. cit.

[3]Strahan, loc. cit.

Ephraim Margolin said these interpretative things concerning the Serrano decision:

> The constitutional proposition established in Serrano is this: that education is a "fundamental interest" commanding protection for the poor; that classification by local wealth is "suspect" that judicial intervention is unavoidable because of the structural immobility of the current system of discrimination by wealth and that appropriate alternatives to the current system are properly left to the legislature.[1]

> The holding of Serrano is narrow and quite different from what headlines could lead you to believe. The Court did not hold property tax unconstitutional. It did not formulate "one kind, one buck" simplistic answers to complex problems of public education. It left open almost the entire spectrum of legislative options without intimating any preferences either as to source of taxation or as to spending priorities. Wisely, Serrano did not posit answers to problems of financing public education. It merely compelled re-examination, re-evaluation and re-thinking of the questions and priorities of financing public schools by abolishing an encrusted system long immune to the winds of change. The court's recognition of the fundamental nature of public education is of signal significance in extending the legal doctrine of equal protection. No court had previously placed education within the circle of interests that merited protection of the strict "equal protection" standards. This is the first time that any government service has been held to involve fundamental interests. The ramifications of such holding could be far reaching within the field of education, and, conceivably, beyond it.[2]

> In terms of spending priorities, Serrano appears to require only equality of access to educational funding. Legislative responses to this challenge could range from the thoughtless allocation of equal funds to meet unequal problems in education to sophisticated approaches to educational needs of children, families, areas or political subdivisions. In terms of tax sources, the legislature again could run the gamut of solutions from the potentially

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[1] Ibid., p. 194.

[2] Ibid., p. 195.

> destructive uniform real property tax to the progressive income tax and to the even more sophisticated combinations of property and income tax with local options for additional spending where extra revenues, uniform throughout the state are allocated on the basis of local tax effort or educational need.[1]
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> The development of a state-wide property tax will represent a probably irreversible intrusion of the state into local government, limiting the capacity of the cities to meet future costs of municipal government. In addition, all state-wide tax approaches may be expected to increase centralization of controls over education with concomitant curriculum stagnation and lessening of interest in public schools by local interests.[2]

In discussing the Serrano decision, William N. Greenbaum said:

> the only significant hint of the actual outcome of the case is contained in one sentence. . . "we are satisfied that plaintiff children have alleged facts showing that the public school financing system denies them equal protection of the laws because it produces substantial disparities among school districts in the amount of revenue available for education.[3]

He further stated:

> Although the distinction implicit in this language is subtle, its implications are significant. Notice that the Court is here referring to disparities in the amount of revenue available to school districts, rather than to disparities in the actual amounts of money spent for education or to disparities in the actual quality of educational programs. In other words, in its most limited sense, the standard for remedy provided

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[1]Ibid., p. 196. [2]Ibid., p. 197.

[3]William N. Greenbaum, "Serrano and Priest: Implications for Educational Equality," Current, March, 1972, p. 4.

> by the Serrano decision does not declare that each state has an obligation to provide equality of education opportunity for all of its children. Rather, Serrano requires that the state must develop a policy of fiscal neutrality--that is, no state school financing policies will be permitted insofar as they create or exacerbate inequities among school districts. In theoretical terms, the states could provide no school financing whatsoever and meet this standard of fiscal neutrality. But in reality what this means is that the state legislatures will have to develop more equitable financing programs that provide each school district with relatively equal financial capacity, regardless of whether substantially equal spending patterns or educational programs are then developed.[1]

In discussing the implementation of the Serrano decision to make sure substantial equality of educational opportunity does exist, Greenbaum warned:

> . . . At the very least, precautions will have to be taken to see that excellence is protected and fostered; that home rule is maintained insofar as it is functional to the operation of equality educational systems; that experimentation is not stopped by the illusion that money alone will solve all educational problems; that working class districts are not simply aided in providing vocational programs without developing academically-oriented programs as well; and, perhaps, that gross interstate disparities in educational spending are reduced or substantially eliminated.[2]

The Serrano decision was the subject of enormous national publicity. The reason for such a response was because California's system of funding schools, with its substantial reliance on local property taxes, was similar to systems operating in every state in the Union except Hawaii.

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[1]Ibid., p. 5. [2]Ibid., p. 6.

If the California system violated the fiscal neutrality standard, the other state systems probably did the same.[1]

Following the announcement of the Serrano decision, a multitude of school finance litigation emerged across the country with more than thirty suits being filed in state and federal courts. Within eighteen months, eight other state or federal courts from as many states had spoken to the issue of interdistrict school finance inequities. Lower courts in Minnesota and Texas declared unconstitutional the methods for financing education in those states. The cases being referred to are VanDusartz v. Hatfield (Minn. 1971) and Rodriguez v. San Antonio Independent School District (Texas 1971). State Courts in Arizona, Kansas, Michigan, and New Jersey did likewise. Most adopted legal reasoning similar to that employed by the California Court in Serrano, holding that statewide school finance schemes that permitted educational resources to vary between districts according to property wealth of each district violated the equal protection provision of the federal and state constitutions. The Arizona and New Jersey cases were decided on different grounds. In Hollins v. Shofstall (Arizona 1972) the court provided relief exclusively for the harm to the property tax payers in tax-poor districts. In the Robinson v. Cahill (New Jersey 1972) decision, the court found that the New

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[1]Pincus, op. cit., p. 87.

Jersey Constitution required the legislature to provide a "Thorough and efficient" system of public education and that their statewide system of public education resulted in the children in certain districts to receive an education that was less than "thorough."[1]

About four months after the Serrano decision was handed down a lawsuit was filed by Demetrio P. Rodriguez challenging the constitutional validity of the Texas public school financing laws on grounds similar to those presented in the Serrano case. In rendering a decision, the San Antonio Federal Court said that the Texas system of financing public schools violates the equal Protection Clause of the Fourteenth Amendment to the U.S. Constitution. To correct this the Court said the state must observe the "principle of fiscal neutrality." The Court declared "the state may adopt the financial scheme desired so long as the variations in wealth among the governmentally chosen units do not affect the spending for the education of any child."[2] This decision of the San Antonio Federal Court was appealed to the U.S. Supreme Court and on March 21, 1973 the Court in a landmark decision held by a five to four vote that the State of Texas

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[1]Ibid., pp. 87-88.

[2]Thomas A. Shannon, "Rodriguez: A Dream Shattered or a Call for Finance Reform?", Phi Delta Kappan, March, 1974, p. 587.

may continue its present system for financing public schools. A major reason given by the Court was that education was not a "fundamental right explicitly protected by the United States Constitution."[1]

". . . In the Rodriguez case the nation's High Court identified its fundamental task thus:

> We must decide, first, whether the Texas system of financing public education operates to the disadvantage of some suspect class or impinges upon a fundamental right explicitly or implicitly protected by the Constitution, thereby requiring strict judicial scrutiny. If so, the judgment of the district court should be affirmed. If not, the Texas scheme must still be examined to determine whether it rationally furthers some legitimate, articulated state purpose and therefore does not constitute an invidious discrimination in violation of the Equal Protection Clause of the Fourteenth Amendment.

In determining that the Texas public school finance system did not "operate to the disadvantage of some suspect class," the Supreme Court observed that: (1) the poorest families are not necessarily residents of the poorest school

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[1]Max Rosenberg, "Proposed: An Equal Opportunity Amendment to the U.S. Constitution," Phi Delta Kappan, March, 1974, p. 466. The writer in search of a brief yet thorough explanation for the High Court's reason to reverse the lower court's decision in Rodriguez found it best explained by Thomas A. Shannon, in his article, "Rodriguez: A Dream Shattered or a Call for Finance Reform," which was published in the May 1973 issue of Phi Delta Kappan. The remainder of this section is a direct quote from Shannon's article. Those portions which are single spaced are his quotes taken directly from the decision of the High Court. For ease of reading, the writer will continue to double space the quoted material written by Shannon.

districts; (2) the lack of personal financial resources of the persons living in the poorer school districts has not resulted in an absolute deprivation of the education at public expense; and (3) even if individual income characteristics of school district residents were ignored, discrimination based on school district wealth (i.e. assessed valuation differences among school districts) would point to a disadvantaged class of persons too large, diverse, and amorphous for identification, as it would be composed of either (a) every child in every school district except the district that has the most assessable wealth and spends most on education, or (b) every child in districts with assessable poverty that falls below the statewide average, or median, or below some other artificially defined level.

Accordingly, the High Court said:

> The system of alleged discrimination and the class it defines . . . is not saddled with such disabilities; or subjected to such a history of purposeful unequal treatment, or relegated to such a position of political powerlessness as to command extraordinary protection from the majoritarian political process. We thus conclude that the Texas system does not operate to the peculiar disadvantage of any suspect class.

The Court then turned to the question of whether education is a "fundamental right," in the sense that it is among the rights and liberties protected by the Constitution. The Court commenced its discussion of this issue by saying:

> Nothing this Court holds today in any way detracts from our historic dedication to public education. We are in complete agreement that

> . . . the grave significance of education both to the individual and to our society cannot be doubted. But the importance of a service performed by the state does not determine whether it must be regarded as fundamental for the purposes of examination under the Equal Protection Clause.

The Court said that the key to deciding whether education is a "fundamental right" is not found in the societal importance of education but in assessing whether there is a right to education explicitly or implicitly guaranteed by the Constitution. Finding that education is not among the rights afforded explicit protection, the Court refused to conclude that education was implicitly protected because:

1. While the Court has afforded zealous protection against unjustified governmental interference with First Amendment free speech rights, for example, it never presumed either the ability or the authority to guarantee to the citizenry the most effective speech or the most informed electoral choice. By analogy, it could not tell states how best to finance the public schools.

2. There is no indication that the present levels of educational expenditure in Texas provide an education that is inadequate. Instead, only relative differences in spending are involved.

3. There is virtually no logical end to the "fundamental right" argument, in that education could not be differentiated, for example, from the significant personal interests in the basics of decent food and shelter.

4. Finally, every step in the development of the Texas system was implemented in an effort to extend public education and improve its quality, and such steps could fairly be described as "affirmative and reformatory."

Therefore, the Court held that education is not a "fundamental right" entitled to constitutional protection.

In light of the High Court's conclusion (1) that there is no "suspect class" which validly can be identified as being disadvantaged by the Texas public school finance law and (2) that education is not a "fundamental right" entitled to constitutional protection, the Court held that the Rodriguez case would not be judged on the basis of the difficult "strict scrutiny test" of constitutional analysis.

Other good reasons for not applying the "strict scrutiny test" to the Rodriguez case, the Court remarked that:

1. The Rodriguez case involves a direct attack on the way in which Texas raises and disburses state and local tax revenues, and this is an area in which the courts have traditionally deferred to state legislatures, because the courts lack both the expertise and the familiarity with local problems so necessary to making wise decisions with respect to the raising and disposition of public revenues.

2. The controversy over basic issues in education among educational experts, including (a) the extent to which there is a correlation between educational expenditures and the quality of education, (b) the proper goals of a system of

public education, and (c) the most effective relationship between state and local school boards, indicates that the judiciary is well advised to refrain from imposing upon the states "inflexible constitutional restraints that could circumscribe or handicap the continued research and experimentation so vital to finding even partial solutions to educational problems and to keeping abreast of ever-changing conditions."

3. The basic issue of federalism is involved. Because of the immense impact of the Court's decision, support of the district court in Rodriguez could ultimately have resulted in the abrogation of systems of financing public education presently existing in virtually every state.

Instead of the "strict scrutiny test," the Court said that the "traditional standard" of review by the judiciary would be used. Under this standard Texas need only show that its state system of public school finance bears some rational relationship to legitimate state purposes.

The Court held that the Texas Statutory plan for funding the public schools is valid because it bears a rational relationship to legitimate state purposes. Ten arguments supporting this contention were offered.[1]

In conclusion, the Court declared:

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[1]Ibid., pp. 587-588.

> The consideration and initiation of fundamental reforms with respect to state taxation and education are matters reserved for the legislative processes of the various states . . . We hardly need add that this Court's action today is not to be viewed as placing its judicial imprimatur on the status quo. The need is apparent for reform in tax systems which may well have relied too long and too heavily on the local property tax. And certainly innovative new thinking as to public education, its methods, and its funding is necessary to assure both a higher level of quality and greater uniformity of opportunity . . . But the ultimate solutions must come from the lawmakers and from the democratic pressures of those who elect them.[1]

Summary and Conclusion

The writer has attempted to trace the theoretical development of state plans for financing education and the influence courts have had on finance reform in education. It was found that the work done by Ellwood P. Cubberly had great influence in the creation of the first "flat matching grant" state plans, many of which were in existence during the late 1950's. Others who contributed significantly in the development of state plans were Harlan Updegraff who advocated the "percentage equalizing grant concept" which has lately been rediscovered by John Coons and named "district power equalizing." George D. Strayer and Robert M. Haig developed the "foundation plan concept," also called a "fixed-unit equalizing grant." Paul Mort, a student of Dr. Strayer, developed the technology for implementing this plan which is

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[1]Ibid., p. 640.

the conceptual basis of many present day state finance plans, including the plan used in Iowa. The last of the early theorists was Henry C. Morrison who advocated the concept of "full state support" for education. One state, Hawaii, had adopted the Morrison Plan.

Early court cases dealing with school reform dealt with the legal meaning of equality of educational opportunity and stressed racial segregation and equality of opportunity. The first case, Plessy v. Ferguson, decided in 1896 established the rule, "separate but equal." The 1954 decision in Brown v. Board of Education held that "racially separate schools were inherently unequal."

Although dismissed in 1969, the case involving McInnis v. Ogilvie which emphasized "educational need" worked as a finance reform guide for legislative policy makers. The development of the "fiscal neutrality theory" by Coons, Clune and Sugarman was used by the plaintiff in the Serrano v. Priest case in California. The California court's landmark decision in August, 1971, stating that the quality of a child's education could not be dependent upon the wealth of his district's location set off a rash of subsequent court cases which tested the constitutionality of the state finance systems with regard to the equal protection clause of the federal and state constitutions. Included in these cases was Rodriguez v. San Antonio Independent School District. A decision in favor of the plaintiff by the lower court was

later reversed by a five to four landmark decision of the U.S. Supreme Court in August 1973 in which the Court stated that education was not "a fundamental right" explicitly protected by the United States Constitution. The decision clearly shifted the focus of school finance reform from the federal courts to the state courts. In April, 1974, the Superior Court of California affirmed the California Supreme Court's decision in Serrano v. Priest. (On October 31, 1976, the Courts upheld the 1971 Serrano decision on a four to three vote.) The decision implies that not only California's school finance system, but that of many other states whose constitutions contain "equal protection clauses" are probably invalid. Richard Strahan writes:

> The courts in which school finance cases have been argued have studiously avoided identifying programs of finance which appear to meet the "equal protection" test. It is apparent that school men will be confronted with the language of these cases for some time to come.[1]

Because of pressures brought to bear in the early seventies by the civil rights movement and court decisions the governors, legislators, and concerned educators and citizens in most of the states instituted commissions to study individual school and state finance systems. Many of these commissions have issued their reports. Robert J. Wynkoop has made an attempt to make a list of criteria or

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[1]Strahan, op. cit., p. 121.

guidelines from recent court decisions and commission reports that can be used to examine and classify types of finance reform and anticipate their future direction. The model he developed through which to view school finance reform may be used to give guidance to those who seek a clear, easily understood, and equitable framework through which to view proposed legislation.[1]

The three most heavily emphasized guidelines for state finance systems from recent court decisions include: (1) Fiscal neutrality; that is education may not be a function of wealth other than the wealth of a state as a whole. The school finance system must make taxable resources equally available to each child. (2) The state must equalize any local revenue that is utilized in the model. (3) Variations in expenditures per pupil are permissible.[2]

The commission reports make a large number of recommendations, but Wynkoop says five general guidelines for equitable school finance models emerge. The commissions unanimously recommend two criteria: fiscal neutrality and the maintenance of variations in expenditures per pupil. These two guidelines were also endorsed by the courts. The commissions also recommended reducing local initiative and if local effort is permitted it should be equalized by the

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[1]Wynkoop, op. cit., p. 543.

[2]Ibid.

state. The final guideline evolving from commission reports is that the school finance model should be fully state funded.[1]

In concluding this section of the literature the writer presents the following major policy issues developed by R. L. Johns with respect to financing public schools that must be asked by every state legislature:

1. What educational programs and services will be funded in the state's school finance plan and for whom will these programs be provided?
2. Will state funds be apportioned on the flat grant basis which ignores differences in the wealth of local school districts, or on the equalization basis which provides more state funds per unit of educational need to districts of less wealth than to districts of greater wealth?
3. Will necessary variations in unit costs of different educational programs and services be recognized or ignored in allocating states funds on either the flat grant or equalization basis?
4. What proportion of school revenue will be provided by the state and what proportion from local sources?
5. How progressive (or regressive) will be the state's tax structure?
6. To what extent will the state provide for financial equalization of educational opportunity among school districts of the state?
7. As the state moves toward the equalization of educational opportunity, will it "level up" or "level down"?
8. As a state moves toward full state funding, will appropriate local control of the public schools be preserved?

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[1]Ibid.

9. Will tax funds be appropriated to nonpublic schools in such a manner as to promote the segregation of pupils by race, religion, or social class?

10. What are the financial needs of the public schools and how nearly can those needs be met, taking into consideration needs for other governmental services and the financial ability of the state?[1]

PART II

THE IOWA SCHOOL FOUNDATION PLAN

Recognizing the necessity to conceive a new finance plan and to arrest the rapid spiral of increasing property taxes, the legislature enacted House File 121 in March, 1971. It became law on April 5, 1971. It provided for what became known as the "Freeze Year."[2]

House File 121 declared that property taxes were to be frozen at the fiscal year 1970-71 rate. No school district could levy more than that except in extraordinary circumstances under permission from the School Budget Review Committee. Each school district would receive "an amount . . . from property and income taxes equal to, but not greater than the amount received from property and income taxes by each school district . . . for the final year commencing July 1,

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[1]Johns, op. cit., p. 21.

[2]Office for Planning and Programming, State Planning Division, The Iowa School Foundation Plan (Des Moines, Iowa: State Government Printing Office, 1973-74), p. 22.

1970 . . ." It was distributed to each school district in the amount of state equalization aid given in previous years.[1]

In addition to other state monies received in fiscal year 1970-71, House File 121 appropriated approximately thirty million dollars in additional state aid. This amount provided forty-five dollars per pupil in recognition of increasing school costs. In effect, the legislature used House File 121 to buy time in which to formulate a new school financing program under which property taxes could be arrested and the State could assume a greater share of the burden of school finance. It gave leaders in the state the needed time to agree on and to write the final details of an Iowa School Foundation Plan.[2]

House File 654, an act establishing a State School Foundation Program was signed into law on June 30, 1971.[3] The following explanation of the Iowa School Foundation Plan is taken from the 1973-74 Report from the Office for Planning and Programming, State Planning Division entitled "The Iowa School Foundation Plan."

Summary of the Iowa School Foundation Plan

PART VI. THE SCHOOL FOUNDATION, pages 24-30.

A. The Iowa School Foundation Plan

Keeping the realities of financing the School Foundation Plan in mind, the first session of the

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[1]Ibid.

[2]Ibid.

[3]Ibid., p. 24.

64th General Assembly passed H.F. 654 which provided for:

1. A basic property tax for 20 mills. This money to be kept locally.

2. State aid which would insure each school district of up to 70 percent of the state cost per pupil for the first year. The foundation percentage would then increase at one percent per year up to a maximum of 80 percent. Such a provision assures each school district of a specific level of financing. The average state cost per pupil was set at $920 for the 1971-72 school year.

3. Each school district receive at least $200 per pupil in state aid unless this causes more than a 10 percent reduction in local millage rates. This limit is maintained for three years and is based upon a 10 percent reduction of the Base Year's rate.

4. Millage rate reduction at a gradual rate. Maximum millage rate reduction is limited each year for three years to a 10 percent reduction of the previous year's rate in order to avoid sudden shifts in returns for some of the most affected districts. The first year (1972-73) to be a reduction from the Base Year rate (1970-71). When the three-year restriction has expired most school districts will have achieved their Foundation millage equilibrium.

5. A state allowable growth rate is computed. For the first time, local public school district costs are tied to the growth of the State's economy. For three years the limit is approximately 5 percent; thereafter, the growth of the state is the limit. For the first year of the Foundation, the growth of the state is limited to $46 per pupil, then $48 for 1973-74, and $51 for 1974-75. After the third year, the allowable growth for the school district budgets will depend entirely on the computed state allowable growth rate.

6. Additional local property tax is levied to cover the balance of the budget providing the millage rate does not exceed the '70-'71 general fund millage. The School Budget Review Committee is authorized to review schools where growth problems seem to exist and provide additional state aid where necessary.

7. Local School Boards will continue to operate the local educational program. Supplemental state aid will be made available which can be planned on by the school district. The boards also have the system of exceeding limitations of the state maximum allowable district costs, by calling for a local school district referendum in which the local voters may approve an additional income surtax.

8. A Guaranteed State Aid fund to aid school districts in which the Foundation formula did not meet the district's actual of maximum cost, whichever is less. This was commonly called the "buy-out" provision. It terminates in 1977.

B. Planned Phasing to 80% Foundation Support

The accompanying chart shows the planned phasing by the state and school districts necessary to reach the desired 80% Foundation level. In its early years, the Foundation Plan included two unusual concepts to facilitate a smooth transition. One is the "guaranteed state aid" provision whereby the state guarantees that no school would fall below its 1970-71 funding level.

PLANNED PHASING

1970/71 Base Yr.
1971/72 Freeze Yr.

Year	Uniform Levy	H.R. 121 Foundation Base	$45 Pupil Growth	(All State Aid) Guaranteed Aid
1972/73	20 Mills	70%	0 to Max. 5%($46)	Yes
1973/74	20 Mills	71%	0 to Max. 5%($48)	Yes
1974/75	20 Mills	72%	0 to Max. 5%($51)	Yes
1975/76	20 Mills	73%	State Growth	Yes
1976/77	20 Mills	74%	State Growth	Yes
1977/78	20 Mills	75%	State Growth	No
1982/83	20 Mills	80%	State Growth	No

If a school district under the Foundation Plan formula would not have income enough to meet its district cost, then the State will make up the difference. This expires in 1977.

The second unusual feature is the gradual millage rate reduction over three years. In that time most districts will have graduated to the level in which the program naturally places them.

These features were necessary to facilitate a graduate transition from primary reliance upon property tax revenue to a reliance on the state general fund. Projections showed that the transition could not be made in one step. Evaluation of all the various transition proposals showed the desirability of adopting this sort of an evolutionary plan. Thus sudden and dramatic shifts and their consequent impact upon the most affected districts were prevented.

C. 1973 Amendments to the Iowa School Foundation Plan

After one full year of operation of the Iowa School Foundation Plan, the Iowa 65th General Assembly was faced in the first session of 1973, with a consideration of the effects and making possible changes in the plan.

Input by local school districts, the State Board of Public Instruction, the School Budget Review Committee and interested state officials indicated some refinements to assist in a smoother transition under the provisions of the State School Foundation Plan.

After weighing the effects and inputs by the varying interested agencies the 65th General Assembly developed legislation aimed at meeting the needs indicated, and passed H.F. 359, An Act Amending the State School Foundation Plan. These amendments starting with Sec. 442.1, Code of Iowa 1973 for the school years 1973-74 and 1974-75, became law on July 1, 1973.

This act is aimed at correcting noted inequities found in the plan and to increase ease in administration at all levels. Many technical points were detailed but only four major changes were noted...

D. Summary View of Iowa's First School Foundation Plan and Amendments

1. It provides for both property and non-property income equalization and gradually reduces the percentage of support for school costs borne by property tax from a state average of 60% to less than 50%.
2. It eliminates open-ended funding of school budgets from property taxes.
3. It will achieve through a ten-year evolutionary process at 10% a year, the state goal of assuring any school district a specific financing level of up to 80% of the state average educational cost per pupil.
4. It has provisions for local option through a low income surtax referendum if the community wishes to exceed the average school district budget limit.
5. It provides for a School Budget Review Committee to alleviate local school budget problems of an exceptional or unusual nature.
6. The plan is easier to understand and each school district can determine independently

of other districts their sources of funding.[1]

Additional amendments were made to the State School Foundation Program in 1974 with the enactment of House File 121 and again in 1975 with the enactment of House File 558. Appendix B gives a resume of the basic provisions of the Iowa School Foundation 1971 Plan with the 1973 Amendments. Appendix C is a copy of Chapter 442 Code of Iowa as it reads with changes made up through 1976. This copy of the Code was provided through the courtesy of James Rose, Budget Supervisor of Education, Office of Iowa State Comptroller.

PART III

DEFINING EQUAL ACCESS TO QUALITY EDUCATION, EFFICIENT OPERATION OF LOCAL SCHOOL DISTRICTS, AND LOCAL FLEXIBILITY

Equal Access to Quality Education

> We have the kinds of schools we do because, for good or bad, these are the kinds of schools "society wants." Historically equality of educational opportunity was interpreted as meaning that all persons were to have equal access to similar instructional resources in public schools, and the schools themselves were to be similar. It was thought that equalizing "inputs" would overcome deficiencies, but equalizing inputs have not ensured equality of opportunity.[2]

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[1] Ibid., pp. 24-30.

[2] Charles Tesconi, Jr., and Emanuel Hurwitz, Jr., Education for Whom? (New York: Dodd, Mead and Co., 1974), pp. 2-3.

Charles Frankel in The Democratic Purpose stated,

> Equalitarianism does not strive to eliminate the distinction among people. It does not strive for "sameness" or "homogeneity." It does not eliminate distinctions. It does not suggest universal equality of endowments. Rather equalitarianism strives to eradicate those norms calling for differential treatment of men which are arbitrary, purposeless, and unconscionable.[1]

> Specifying, justifying, and ordering criteria for differential or equal treatment poses numerous problems because each man has his own criteria beliefs with regard to what constitutes abolition of unconscionable distinctions and what is unreasonable and purposeless.[2]

> It is when people see particular inequalities as unjust and alterable that equality as an ideal becomes a potent force in thought and action.[3]

The expansion of governmental bureaucracy has caused increasing impatience and frustration with the quality of American life. The seemingly ever-present lag between the perceptions of needs and a political decision to see those needs met has brought the public frustration to a head.[4] "If public education is to be a vehicle for equality of opportunity in society at large, there must be equality for educational opportunity."[5]

"The key word is opportunity, the opportunity to get an education of whatever amount and kind one's capacities

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[1]Ibid., p. 7. [2]Ibid.

[3]Ibid., p. 13. [4]Ibid., p. 14.

[5]Ibid.

make possible. It is the opportunity that must be equalized."[1] The question that comes up is whether it will be accomplished by a process of leveling up or leveling down. The traditional "input" notion of equality of educational opportunity consists of two major elements: (1) anyone who wishes schooling should have access to a school, and (2) all schools should have equal resources inputs in terms of materials, teachers, curricular, and the like.[2]

Under the direction of the Civil Rights Act of 1964, James Coleman conducted a survey to assess equality of educational opportunity, because there did not exist a single concept of "equality of educational opportunity." The survey was meant to give information relevant to a variety of different concepts. One, the traditional concept, in terms of differences of community input to the school such as per pupil expenditure, school plants, libraries, quality of teachers and other similar quantities. A second definition lay in the racial composition of the school following the Supreme Court's decision that segregated schooling is inherently unequal. The third concept looked at effects of the school for individuals with equal backgrounds and abilities while the fourth looked at effects of school for individuals with unequal backgrounds and abilities. In his 1966 Report, he found no correlation between low achievement and inadequate

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[1]Ibid., p. 16. [2]Ibid.

educational "input." He found that schools have little influence on a youngster's achievement that is independent of his social, economic, and cultural background. Coleman's Report suggested that educators should assess equal educational opportunity by the "outputs" when he concluded that equality of educational opportunity is not determined so much by equality of resource inputs, but by the power of these resources in bringing about achievement and attitude outputs. Coleman's new concept of equality as the result of his study measured the differences in outputs of achievement and attitudes, rather than inputs into an educational program in determining those quality elements which are effective for learning.[1]

Christopher Jencks in his book, Inequality, states that while most Americans accept inequality in virtually every sphere of day-to-day life, they still believe in what they often call equal opportunity. Rules determining who should succeed and who should fail should be fair, yet people disagree precisely on what is fair and unfair.[2] He went on to say that the reforms of the 1960's did not tackle the

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[1]James S. Coleman, "Responsibility of the Schools in the Provision of Equal Educational Opportunity," NASSP Bulletin, May 1968, pp. 179-190.

[2]Christopher Jencks, Inequality: A Reassessment of the Effect of Family and Schooling in America (New York: Basic Books, Inc., 1972), p. 3.

problem of adult inequality. We cannot blame economic inequality on differences between schools since their differences are seen to have little effect on any measurable attribute in later life of those who attend them.[1]

Jencks wrote in his book that there are at least three traditions for determining and evaluating quality in our schools. The first and most popular approach is to equate quality with cost. A second tradition equates quality with social exclusiveness. A third tradition equates quality with what a school teaches or tries to teach.[2]

Cost quality. Unequal expenditures do not account for the fact that some children learn to read more competently than others, nor for the fact that some adults are more economically successful than others. The case for equalizing expenditures must therefore rest on a simpler logic, which asserts that public money ought to be equitably distributed even if the distribution of such money has no long term effects. Adequate school funding cannot be justified on the grounds that it makes life better in the hereafter--it must be justified on the grounds that it makes life better in the here and now.[3]

Social exclusiveness. Many define a good school as

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[1]Ibid., pp. 8-9. [2]Ibid., p. 23.

[3]Ibid., p. 29.

one with the right kinds of students. A definition like this makes it difficult to provide good schooling for everyone. Once a school takes in "undesirable" students (defined as less desirable academically, socially, or economically) its standing automatically declines. From this perspective quality of a school depends upon its exclusiveness. Exclusiveness is a product of the "free market." Some areas attract and hold only those who are willing to pay extra to support what they assume is quality education. People who define a good school in terms of its student body are probably wiser than those who define it in terms of budget. The character of the student body determines what friends a student will have, what kinds of values he will be exposed to, and whether he will be happy or unhappy.[1]

Quality by what the school teaches. Equalizing opportunities to learn requires a system of flexibility enough to respond to children's specialized abilities, to change in their performance over time, and to discrepancies between test scores and other kinds of performance. Students are not equally talented, ambitious, or hard working. A system which provides everyone with equal opportunities will ensure the more talented, ambitious and diligent success, while others will fail. The fact that this happens does not prove that students' educational opportunities were unequal, it

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[1]Ibid., pp. 30-32.

proves that equal opportunities are not enough to ensure equal results. Jencks emphasizes that teachers should try to respond to students' individual interests and differences, rather than expect all students to learn the same thing.[1]

Jencks found in his work that raising expenditures did not raise achievement scores very much. With regard to traditional quality input resources, such as facilities, numbers and kinds of personnel, salaries, and criteria for teacher selection made no measurable effectiveness on the quality of a school. He says that student morale, teacher expectations, school traditions, and school climate, although difficult to measure, have a greater effect on the cognitive development of students in schools.[2]

The following statements are summaries of comments made by Jencks in his writings:

> Staying in school predicts occupational status much better than test scores do and predicts future income at least as well.[3]

> Noncognitive attributes play a larger role than cognitive skills in determining a person's future economic success or failure. Non-cognitive traits also contribute for more quality in human life and to the extent of human happiness. Therefore, non-cognitive effects of schooling are more important than cognitive effects.[4]

> Qualitative differences, defined by Jencks as; facilities, numbers and kinds of personnel,

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[1]Ibid., pp. 36-41. [2]Ibid., pp. 93-97.

[3]Ibid., pp. 131-132. [4]Ibid., p. 134.

> salaries, and criteria for teacher selection, between high schools seem to explain about two percent of the variation in student educational attainment. School input resources do not appear to influence student's educational attainment.[1]
>
> One good way to give children a sense of purpose is to give them activities that contribute to their being more like grownups.[2]
>
> The ideal school system is one that provides as many varieties of schooling activities as its children and parents want. There appears to be no compelling reason why professional educators or legislators should be empowered to rule out alternatives that appeal to parents, even if they seem educationally or economically unsound. Parents should have a choice in the kinds of values that they want stressed in the schools in which they enroll their children.[3]
>
> Good schools should be satisfying places for teachers and children. Because people widely differ on their notions of what is a satisfying place, the parents should be able to put their values into practice by choosing the type of school that they want their children to attend.[4]
>
> Since no evidence shows professional educators (or legislators) know appreciable more than parents about what is good in terms of quality education for children, it seems parents should decide about what kind of education their children should have when they are young and let children decide as they get older.[5]

In his work, Jencks challenged long cherished beliefs about the place of the school in American society. He

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[1]Ibid., p. 159.

[2]Ibid., p. 237.

[3]Ibid., pp. 236-237.

[4]Mary Jo Bone and Christopher Jencks, "The School and Equal Opportunity," Tesconi, op. cit., p. 155.

[5]Ibid., p. 156.

emphasized that the burden of achieving equality of educational opportunity cannot be borne by the educational system alone. It depends upon not only what one does in the schools, but also what is done elsewhere in the economy, in the polity, and the society at large. Awareness of the issue of equality of educational opportunity has increased, but whether or not society in general is closer to ensuring quality and equality of schooling remains debatable according to Jencks.[1]

B. Paul Komisar and Jerraold R. Combs defined equality in two ways: "equal as same" and "equal as fitting." They concluded that equality rightly understood, has no fixed meaning, that it shifts in meaning given different contexts. They rejected the equal as same concept because it assumes specific meaning appropriate in all contexts. (Example: The quality in schools is the same if their costs per pupil, curriculum, and other inputs are equal.) They concluded that the principle of equality is a second order principle; it is derived from the first order, or prior ethical principles. Given these conclusions, the definition of equality does not dictate educational preferences, but rather educational preferences should suggest an expression for equality. In their treatment of the "equal as fitting" conception, they supported Coleman's arguments that equal educational

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[1]Tesconi, op. cit., p. 147.

opportunity should be measured in terms of educational quality "output," the achievement students receive from the schooling. They believed that allegiance to an equality principle as such is an empty gesture. They say that the principle is a secondary or depending on logical prior moral commitment to make it meaningful. They give the example that it is meaningless to support the idea that school subsidies should be distributed to communities on an equal basis. It is not until a commitment is made as to what constitutes rightful allocation, that assent to the quality principle becomes significant.[1]

Thomas F. Green looked at equal opportunity for quality education from what he calls a "benefit view." He reasoned that it is impractical, if not impossible, to formulate a principle of justice at once general enough to cover all the demands of justice in an educational system and yet specific enough to constitute a clear guide to practice. He regarded the educational system as a system for the distribution of certain goods and benefits. He provided a framework for judging the justice of the disparities that exist such as income and wealth. His model allowed one to ask the fundamental question in the inequality conflict: What would constitute an acceptable or unacceptable inequality

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[1]B. Paul Komisar and Jerraold R. Coombs, "The Concept of Equality in Education," Tesconi, op. cit., pp. 67-78.

in the distribution of educational goods and benefits? He does not include income, occupational opportunity, or social class standing as educational goods or benefits. He considers them as good and benefits linked to educational benefits, but not themselves educational benefits. By educational benefits he means such things as knowledge, skills, tastes, and certificates. Those things are associated with certain other goods and benefits of the society that are non-educational in nature. He allows for benefit differentials from the educational system with regard to a person's ability, choice and tenacity. He feels if any of these are removed injustice occurs because equal opportunity will not exist. Theoretically, he feels only a person's inability should be the only one that might exist.[1]

Like the others previously discussed, Green viewed inputs into an educational system as having little effect upon the outputs of that program. With regard to his view of benefits, he felt that equal opportunities for quality education existed when the range of the distribution of benefits and the distribution within the range is approximately the same for each relevant social group within a given student population. He pointed out three important things to remember concerning the benefit view of equal quality

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[1]Thomas F. Green, "Equal Educational Opportunity: The Durable Injustice," Tesconi, op. cit., pp. 79-100.

educational opportunity: (1) It does not say everyone must be at the same level of achievement, (2) It may require unequal opportunity in the resources sense, (3) Equal benefits, although impossible to achieve would be a sufficient condition for the claim to have achieved equal educational opportunity, and (4) This view constitutes an ideal for policy formulation.[1]

Summary and Conclusion

Coleman, Komisar, Combs, and Green are in agreement that the effects (outputs) of resource inputs, rather than a mere definition of inputs, now constitutes the basis for assessing equal access or opportunity to quality education. Green points out that this kind of interpretation requires a basic change in the concept of the school itself and he doubts that Americans can make this change. Coleman agrees a shift of interpretation demands a change in the concept of the school, but is more optimistic.[2]

Equal access to quality education is seen to be a complex concept. The concept is intermediate. Much of the reason it defies definition is that it is essentially prescriptive, rather than descriptive. It does not describe an actual state of affairs. It deals with "ought,"--what should be, what is desired, what is hoped for--and very few agree with

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[1]Ibid.

[2]Ibid., p. 100.

what ought to be. The person who defines equality takes a moral stand which makes one's coming to grips with the issue of equal access to quality educational opportunity and arriving at a universal definition of the concept extremely difficult.[1]

Christopher Jencks' stated that educational quality might be measured to some degree by the climate that exists in a school. A good climate would be generated by high student morale and satisfaction, teacher satisfaction, and the willingness of parents to support as many varieties of schooling activities as they and their children feel are necessary and valuable. He stated that the non-cognitive attributes play a larger role than cognitive skills in determining a person's future success. He felt that staying in school predicts occupational status and future income much better than do test scores. From this it might be reasonably concluded that those schools that retain their students and adequately prepare their graduates for advanced schooling or gainful employment would be offering some degree of quality in their educational programs.

The following comments concerning quality schools were made by Roger Hiemstra in his book, The Educative Community:

> A sense of community is needed before the most effective educational programs can be implemented.

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[1]Tesconi, op. cit., p. 66.

> A disorganized community is often open to problems or exploitation by various forces. The larger the community the more difficult it is to achieve organized community effort.[1]
>
> Persons must feel and believe that the local school is serving their needs and that they have a say in the decisions that effect their school. Greater community involvement in a school improves its educational quality. A quality school must care about families and enforce in school the values being taught at home rather than impose a different value system. The larger the institution the less effective this process is. The quality of a program is directly related to how well communication between the school and home exists or is perceived to exist. One of the most important needs in a quality educational system is for it to promote a strong sense of worth among students. The system must give students an opportunity to be active citizens--give them opportunities to participate in varied activities. The quality school must be person-centered, be a place where young people are successfully prepared for their life roles, and an integral part of the entire community.[2]

W. Fred Totten reported that the effectiveness of schools to meet human needs depends upon the effectiveness of its leadership, communication, and human relations. He further stated that schools must provide opportunities for youngsters to practice leadership and have leadership experiences. The schools must be designed to meet individual needs. He warns that frequently the values of education held by the professional educators or legislative policy makers

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[1]Roger Hiemstra, The Educative Community (Berkeley, California: McCutchan Publishing Co., 1974), p. 15.

[2]Ibid., pp. 19-58.

have not been in close accord with the values of learners and their parents.[1]

Eugene Howard implied that a human climate is essential for effective learning in quality schools. It can stimulate learner initiative and creativity and will be likely to encourage attitudes of self-confidence, originality, self-reliance, enterprise, and independence. He said evidence also strongly suggested that such a climate is conducive to high academic achievement. He defined climate as the aggregate of social and cultural conditions which influence behavior in a school.[2]

Edward J. Meade, Jr., reported in his article, "Improving Schools: Looking Back to See Ahead," that the Ford Foundation in its effort to trace and analyze the improvement of education in the 1960's offered the following two conclusions: (1) Small school units change faster than larger ones. More importantly, these smaller units seemed better able to generate real positive changes relevant directly to learners which is what the end result should be. (2) Schools will improve or not depending on the sensitivities and wisdom of those who shape them--the public, the government, the professionals--to the people schools are expected to serve and

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[1]W. Fred Totten, The Power of Community Education (Midland, Michigan: Pendell Publishing Company, 1970), pp. 11-158.

[2]Eugene R. Howard, "School Climate Improvement," Educational Digest, April, 1974, pp. 10-13.

to the society that supports them.[1]

In concluding this section on equal access to quality education, the writer quotes Harold H. Punke who wrote:

> The American people have been defining quality education as that education which reaches an increasing percentage of the population with content they find satisfying because it is useful. Criterions of usefulness vary from one person to another, and in a collective sense from one community or decade to another--as technology, affluence, population growth, expansion in knowledge, and participation in government become more prominent aspects of our culture.
>
> Quality education means the kind of educational content and procedures which enables man increasingly to become master of his fate which includes increasing awareness of alternatives which become available, and increasing sensitivity to the consequences of pursuing different alternatives.[2]

Efficient Operation of Local School Districts

Literature dealing with what constitutes efficient operation of local school districts was difficult to find. Therefore, the following information drawn from the report, "Improving Education for Iowans," will be used to help define it.

The Governor's Educational Advisory Committee in their nineteenth recommendation suggested that the number of administrative districts for elementary and secondary education

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[1]Edward J. Meade, Jr., "Improving Schools: Looking Back to See Ahead," Educational Digest, XXXIX, No. 4 (December, 1973), 12-15.

[2]Harold H. Punke, "Popular Control and Quality Education," The Education Digest, XL (February, 1975), 21-23.

in Iowa should be drastically reduced. This they said would enable students to receive quality education in an efficient manner. The committee made no claims as to the possible cost savings of this recommendation, but said that it would assist in insuring that the money then being spent for elementary and secondary education would be used in the most efficient manner.[1] The committee's definition of how money is spent in an efficient manner was never described in the report.

An insight into what some individual members of the committee might have meant was found in their individual comments written in Appendix C of their report. Mr. John Baldridge commented that public support of education was being eroded and one of the reasons was because educational dollars were being extended to support inefficient small schools under a formula that did not provide equalized educational opportunity. He said that the public must realize that problems of the moment such as inefficient organization and unfair funding can and will be solved. A larger understanding must be created that education is doing a phenomenal job, changing age old methods, devising methods of teaching subject matter so new that they are not available in current

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[1]Governor's Educational Advisory Committee, Office for Planning and Programming, Improving Education for Iowans, Final Report 1971 (Des Moines, Iowa: State Government Printing Office, 1971), pp. 56-57.

textbooks reluctantly, assuming problems that have arisen through the failures in many homes, and that it is graduating the best educated young people in the history of the State.[1]

Mr. Robert Buck commented:

> The current grumbling reflects concerns about quality and efficiency of education at all levels, however, we are all most vocal about our own local school districts. I believe the citizens of Iowa are ready to participate in a critical evaluation of our 453 local school districts.
>
> Declining enrollment, due to lower birth rates and outward migration, will place severe stress on a great many districts in the next five to ten years. The rub will come in trying to build a quality program at a cost per pupil acceptable to tax payers. It is embarrassing right now to count the number of classes in Iowa high schools with a teacher teaching less than ten students...if we want to keep costs per pupil under reasonable control, then we cannot ignore the problem of small classes.[2]

Mr. Alvin F. Bull remarked that too often, the wrong questions are being asked about our educational system. He said this about <u>cost effectiveness</u>:

> "What does it cost?" is important but incomplete. A necessary companion question is "What are we getting for the money?" Only when both can be answered is it possible to determine cost effectiveness of schools.
>
> Schools have not been given a clearly stated charge. Our expectations must be outlined in specific terminology. With leadership from the Iowa Department of Public Instruction and teacher training institutions, each local district with the help of an advisory committee should work out a

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[1]Ibid., p. 115. [2]Ibid., pp. 117-118.

precise statement of expectations that are acceptable to the local community. Continual review would be necessary.

Several means of evaluation should be employed simultaneously to determine how well each school measures up to these expectations. Such measures might include standardized tests; evaluation by students, parents, teachers, administrators, and outside experts; performance follow-up of students leaving the schools; and others that may be devised.

A budget and record keeping system which visibly and properly allocates costs to each unit of instruction should be devised by the Iowa Department of Public Instruction and required of each school.

For too long the chief measure of a school has been gross inputs (people, buildings, dollars) while output (change engendered in pupils) has been ignored. When we can look at cost per increment of change, valid comparisons can be made. We can intelligently decide how much schooling we want to buy and whether it is being delivered with efficiency and effectiveness. Then, too, research, planning, and innovation will be in demand for improving the system.[1]

Mrs. Ruth Riessen wrote:

Taxpayers are demanding--rightfully so--that the schools become accountable for a fair return of their investment. It is time to count costs balanced by results...unproductive procedures should be eliminated...administration must be efficient...teacher ability, performance, and use should be determining factors in setting salary scales rather than tenure and additional college credit alone. Course offerings and course content must be justified by yield. Extra-curricular experiences must be considered from viewpoints of time and money outlays against lasting benefits to student attitudes, habits, and interests. . .

Reorganization of schools is a knotty problem. Some is needed. I believe larger administrative

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[1]Ibid., p. 119.

districts can increase efficiency in management, purchasing supplies, transportation, etc. Some disadvantages of large, impersonal attendance centers may outweigh the values of increased curriculum selection. Welfare of students should be uppermost. Lost time in unnecessary transportation can never be regained...It is high time we take a look at what we need and what we can afford.[1]

Summary and Conclusion

The writer notes that among those committee members commenting on efficient operation of local school districts, there was no real general agreement among them with regard to what constitutes efficiency. Small districts were believed by Baldridge to be inefficient, yet he stated Iowa schools (which includes a high percentage of small districts) were graduating the best educated young people in the history of the State. Buck appeared to equate efficiency with building quality programs at a cost acceptable to taxpayers. He criticized teaching loads of ten or fewer students as being embarrassing and related them to inefficiency. In contrast, Bull equated efficiency with cost effectiveness "What are we getting for our money?" He criticized the fact that for too long the chief measure of a school has been gross inputs while outputs had been ignored. Riessen also believed that efficiency of school districts must be determined by a balance between cost and results. She felt that the welfare

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[1]Ibid., pp. 130-132.

of pupils taking into account the individual attention they receive and the community involvement in deciding their programs is of utmost importance when looking at efficiency in school operation.

Gordon M. Seely in his book, Education and Opportunity, wrote that schools are to educate for the satisfaction of life and for leisure.[1] Untold damage is done to children simply by size and standardization of the big system. The experience of the wise principal is that the most essential part of his job is to know every child's name and be an available godfather.[2] The claim that standardization of procedure is more efficient, less costly, or alone administratively practical is usually false. The more authority to initiate that is delegated to many, the wiser and freer we will be. Decentralization of schools into small units of perhaps one hundred students would be most efficient and effective.[3]

Warren E. Gauerke and Jack R. Childress stated in their book, The Theory and Practice of School Finance, there

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[1]Gordon M. Seely, Education and Opportunity: For What and For Whom? (Englewood Cliffs, N.J.: Prentice-Hall, Inc., 1970), p. 51.

[2]Ibid., p. 7.

[3]Paul Goodman, "The Universal Trap," The School Drop Out, ed. Daniel Schreiber (Washington, D.C.: National Education Association, 1964), pp. 40-53.

is more to a school finance plan than just tax rate on some piece of real estate with an adjustment to determine the state's fair share. "The thoughtful know that reorganization alone or dollars alone do not ensure quality education program opportunities and efficiency."[1]

Local Flexibility

The fifth principle established for guiding Iowa's educational responsibility to its citizens stated that the State should allow for local flexibility. It underscored very clearly that local citizens should be the final determinant of the priority that they wished education to play provided this additional support is raised entirely from local effort (local property taxes and/or income surtax charges).[2]

In the 1973-74 Iowa School Foundation Plan Report it was stated that this fifth principle was being met.

> Local flexibility is allowed in the plan through a provision for calling a local referendum for the purpose of providing an additional income surtax if additional spending is desired by the district. Facts taken from the "School District 1972-73 Maximum District Cost Analysis" shows that 313 of 452 school districts have enrollments below 1000 students. Almost one half of these are in the

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[1]Warren E. Gauerke and Jack R. Childress, Theory and Practice of School Finance (Chicago: Rand McNally and Company, 1967), p. 21.

[2]Governor's Educational Advisory Committee, op. cit., p. 65.

> high cost, over $1,057 per pupil brackets where their allowable growth is now restricted by the School Foundation Plan. 139 of 452 school districts have enrollments above 1000 students. Ninety of these (65%) are at or below the state cost per pupil level. Only six schools have a high cost per pupil and high enrollment at the same time.
>
> It is apparent from these figures that one factor in high cost situations is low enrollment. It appears then that structural change is one method whereby school cost can be controlled and perhaps reduced on a per student basis.[1]

This statement with regard to the State having met the principle of providing for local flexibility seems to be evasive. Additional spending was allowed by only one means--an additional income surtax calling for a local referendum. It did not allow local boards of education any flexibility in determining which means of raising additional revenue would be best for its local district. Structural change was suggested as one method whereby school cost can be controlled and perhaps reduced on a per student basis. Does this sound like an appropriate answer to the question of allowing local districts to be the final determinant of the priority they wish education to play in their districts?

House File 558 which was passed by the 1975 session of the Sixty-sixth General Assembly repealed the election for an income surtax in Section 442.14, Code of Iowa. In its

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[1]Office for Planning and Programming, op. cit., pp. 44-45.

place a voter approved limited enrichment amount which could only be used for educational research, curriculum maintenance or development, or innovative programs was adopted. The additional enrichment amount that can be raised by a district is limited to five percent of the state average cost per pupil and shall be raised by a combination of enrichment property tax not to exceed fifty-four cents per one thousand dollars valuation and a school district income surtax not to exceed two and one half percent.[1] For additional information on the additional enrichment amount see section 442.14, Code of Iowa, located in Appendix C.

Summary and Conclusion

John Fisher writes: "The keystone of the American school system is the local board. School boards must have the respect and support of the community to be effective."[2]

The Iowa School Foundation Plan allows for a restricted amount of local budget flexibility. Under the plan, elected boards of education are not allowed to determine the amount of additional local revenue that they feel is necessary in their district to supplement the foundation plan in order to

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[1]School Foundation Program, Chapter 442, Section 14, Subsection 4, Code of Iowa (Des Moines, Iowa: State Government Printing Office, 1976).

[2]John H. Fisher, "Is the School Board the Key?", Seely, op. cit., p. 63.

maintain a program commensurate to their needs. They are allowed to put before their voters a restricted local effort enrichment amount which is limited by law to its usage.

Christopher Jencks gave two examples of why public schools are failing in his article of that title:

1. State legislators assume that if local boards are left to their own devices they will hire incompetents, so the legislature imposes elaborate and largely irrelevant state certification requirements.
2. Innovations from the bottom up are impossible and unthinkable in complex systems.[1]

In her article, "The Myth of Local Control," Sally H. Wertheim writes:

> In theory control rests at the state level and is delegated to local boards to implement through their own policies. Local control is reported to exist, but schools are uniformly similar. Why?
>
> Educational journals helped to standardize educational practices. They performed a function of public relations for an emerging educational bureaucracy on the state level. They promoted the concept of centralization of control and supervision. After promoting the concept in the nineteenth century it was important to legislate it to insure uniformity. The efficient centralized agencies so clearly desired in the nineteenth century grew to provide the framework which disallows local control today. Local control is only a slogan in American education today.[2]

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[1]Christopher Jencks, "The Public Schools Are Failing," Seely, op. cit., p. 59.

[2]Sally H. Wertheim, "The Myth of Local Control," The Education Digest, XXXIX, No. 4 (December, 1973), 22-25.

PART IV

THE PROBLEM OF PROVIDING FOR MEANINGFUL EVALUATION

In their report, "Improving Education for Iowans," the Governor's Educational Advisory Committee wrote that the increasing demand for accountability for all levels of education is not going to be a passing phenomena. This requirement will place additional responsibility for expanded research and evaluation procedures directly on all educational institutions. Output measurements are going to be more important than input criteria and effective methodology for analyzing the quality of the educational product must be developed.[1]

In the 1973-74 report, "The Iowa School Foundation Plan," the Office for Planning and Programming, State Planning Division, reported that the fourth principle used to guide the Foundation Plan which states, "The State should provide for continuous and widely reported evaluation of the local school districts and the State system in its entirety," was not yet accomplished.[2] Why after two years had this not been accomplished or for that matter is not being accomplished to this day?

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[1]Governor's Educational Advisory Committee, op. cit., p. 3.

[2]Office for Planning and Programming, op. cit., p. 44.

According to W. L. Pharis forces which have retarded critical examination of the outcomes of education include:

(a) The unfortunately slow evolution of education as a profession.

(b) The tremendous growth in the size of the educational institution.

(c) A defensive attitude on the part of educators themselves toward any criticism.

(d) The lack of valid criteria by which to evaluate educational outcomes.[1]

Egon G. Guba discussed six clinical signs that educational evaluation today is somewhat less than effective. First, everyone including local school districts, state departments and the U.S. Office of Education avoids evaluation unless it is painfully necessary. Second, anxiety exists which stems from the ambiguities of the evaluation process. Third, evaluation program models are relatively non-existent and schools are not conducting any meaningful evaluations. Fourth, the lack of meaningful and operational guidelines for evaluation is notable. The inability of the very agencies that require evaluation to provide adequate guidelines for its implementation must be regarded as one of the more serious difficulties besetting evaluation. Fifth, evaluation consultants fail to give the kind of advice which the practitioner finds useful. It is certainly a serious symptom of

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[1]W. L. Pharis, Decision Making and Schools for the 70's (Washington, D.C.: National Education Association, 1970), p. 65.

disorder when the experts in the field of evaluation seem to be unable to design evaluations that meet even their own criteria of technical soundness. Finally, evaluation is so often incapable of uncovering any significant information.[1]

Guba felt there were six basic lacks in educational evaluation including:

(1) The lack of an adequate definition for evaluation.

(2) The lack of evaluation theory.

(3) The lack of knowledge about the decision process--programs to improve education depend heavily upon a variety of decisions, and a variety of information is needed to make and support those decisions.

(4) The lack of criteria--judgments must be made in terms of some implicit or explicit value structure. A consensus should be achieved about the values that are invoked.

(5) The lack of mechanisms for organizing, processing, and reporting evaluation information--there is none in existence today.

(6) The lack of trained personnel to do effective evaluations.[2]

Guba felt that the primary task in evaluation today was the provision for sensible alternatives to the evaluator. He stated a technology for evaluation is needed.[3]

Daniel L. Stufflebeam defined evaluation as the provision

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[1]Egon G. Guba, "The Failure of Educational Evaluation," The Education Technology Review Series, No. 11, ed. Ernest R. House (Englewood Cliffs, N.J.: Education Technology Publishing, 1973), pp. 1-9.

[2]Ibid.

[3]Ibid.

of information through formal means, such as criteria, measurement, and statistics, to serve as rational bases for making judgments in decision situations. He said there is frequently a tendency to over depend upon personal experiences, hearsay evidence, and authoritative opinion, and surely too many decisions are due to ignorance that there is a need for a decision or that viable alternatives exist. Decision makers should maintain access to effective means for providing evaluation information. Under best circumstances, judgmental processes are subject to human bias, prejudice and vested interest.[1]

In his article, "Toward a Science of Educational Evaluation," Stufflebeam discussed four strategies for evaluating educational programs; content evaluation, input evaluation, process evaluation, and product evaluation. Content evaluation is used when the major objective is to define the environment's unmet needs, problems underlying those needs, and opportunities for change. This type of evaluation leads to establishing program goals and objectives. Input evaluation is used to determine how to utilize resources to meet the program goals and objectives. The end product of input evaluation is an analysis of alternative procedural designs in terms of potential cost and benefits.

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[1]Daniel Stufflebeam, "Toward a Science of Educational Evaluation," The Education Technology Review Series, No. 11, House, op. cit., pp. 20-25.

Process evaluation provides periodic feedback to responsible persons for continuous control and refinement of plans and procedures. It tries to identify and monitor sources of program failure. Product evaluation is used to determine the effectiveness of a project or program after it has run its full cycle. Its objective is to relate outcomes to objectives and to context, input and process, i.e. to measure and interpret outcomes.[1]

James D. Finn gave these reasons why evaluation is important in the educational enterprise:

(1) It adds to substantive knowledge of educational processes.

(2) It provides information in order to adjust, discard, or otherwise change the application of ongoing educational processes.

(3) It provides justification for political, social, economic action relating to education.

(4) It creates a production (usually paper) which can move through bureaucratic systems and thus keep these systems operative.

(5) It provides instruments which may be used to carry information on the success of the process to the educational community.[2]

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[1]Ibid.

[2]James D. Finn, "Institutionalization of Evaluation," The Education Technology Review Series, No. 11, House, op. cit., p. 11.

Summary

In concluding this section of the literature on evaluation, the following thoughts expressed by Joseph C. Payne and Ernest R. House are offered:

> It is essential to the discussion of the anatomy of evaluation to accept the fact that evaluation is a human act whether it be to place a value upon a person, place, or thing, or idea, whether it be a simple or a complex process used to arrive at a conclusion, whether it be with or without structure, biased, objective or unbiased, it is an act by a human... Evaluation is not measurement...Measurement is a process utilized by the human to evaluate... Attainment of the necessary function called evaluation is beset by fears and anxieties created by the past and by rapidity with which change takes place today. However, once attained pride mounts, morale bubbles at its highest level and the effectiveness of a process reaches the apex of clear and distinct impact upon the societal needs and the increasingly complex cultures of the day. No human can resist asking and trying to answer the questions, "Is what is being done effective?" and "Who is effective in getting it done?"[1]

When asked the question, "Can public schools be evaluated?" Ernest R. House said, "Certainly, in terms of any of a dozen sets of standards, many of which are in conflict with one another."[2] He went on to say:

> Can they be evaluated unequivocally? No, there is always a criterion omitted, a sample

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[1]Joseph C. Payne, Evaluation and the Organization, U.S., Educational Resources Information Center, ERIC Document ED 119 294, October, 1975, pp. 2-7.

[2]Ernest R. House (ed.), School Evaluation: The Politics and Process (Berkley, California: McCutchan Publishing Corp., 1973), p. 330.

misdrawn, a statistic misused. Can they be evaluated decisively? Occasionally they can, and even favorably, for selected audiences. Can they be evaluated successfully? Yes, but it must be with modest expectations. Can they be evaluated helpfully? Yes. Immersed as the school is in a political context, it is neither possible nor desirable that it be run entirely on deliberate rational grounds. But it can be self-critical part of the time. It can try to assure me as a parent that my five-year-old daughter, whom I sent away to school for the first time this year, is getting good treatment.[1]

PART V

TAX EQUITY IN IOWA'S SCHOOL FINANCE SYSTEM

The second principle established by the Governor's Educational Advisory Committee stated that the State should provide for equity in financing education in Iowa. On February 23, 1976, "An Assessment of the Tax and Expenditure Equity of Iowa's School Finance System" was presented to the Iowa General Assembly by the Legislators' Education Action Project headed by Dr. William H. Wilken and Dr. John J. Callahan. The Legislators' Education Action Project known as LEAP is a program of the National Conference of State Legislatures designed to assist states in their search for practical answers to pressing school finance problems. Under the leadership of legislators from every part of the country, LEAP utilized a small central staff and expert

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[1]Ibid., p. 331.

consultants to provide in-depth technical support to state legislative committees or commissions responsible for revising state educational finance laws.

Chapter Two of the LEAP report dealt with the problem of how well Iowa's School Finance System provided for tax equity. It is from that source that the writer will direct his attention regarding this issue.

The assessment found that while educational expenditures among most Iowa school districts are fairly equal (only three other states--Hawaii, New Mexico, and Florida--can readily claim more educationally equitable school finance systems than Iowa's)[1] local tax rates are not. School districts supporting the highest tax rates do not have expenditure levels which are proportionate to their efforts. "Recent changes in property assessments across Iowa may make property tax rate disparities even greater."[2] Ranging from under eighteen percent to more than forty-eight percent, the greatest increases in valuation will occur mainly in the state's fiscally-advantaged communities. Between 1976 and 1977, the forty-five poorest school districts will experience a twenty-nine percent increase in their assessed valuation

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[1]The Legislators' Education Action Project, National Conference of State Legislatures, An Assessment of the Tax and Expenditure Equity of Iowa's School Finance System (Washington, D.C.: Government Printing Office, February 23, 1976), p. I-1.

[2]Ibid., p. II-1.

while the forty-five richest will average thirty-seven percent. School districts having the greatest increases in valuation currently possess among the most favorable expenditure levels and most advantageous pupil-teacher ratios. This condition is likely to become further exaggerated because the state's richest districts are experiencing much greater enrollment losses than the state's poorest districts.[1]

While there are clear-cut property tax rate variations among the state's school districts, the tax burden implications of these variations are less clear. The bulk of the school districts in the State do not suffer markedly different tax burdens. Average income per pupil varies by only about eleven percent among two-thirds of the state's districts and average tax burdens on personal income by school district fluctuate by only seven percent in these same districts. The tax burden gap between wealthiest and poorest districts in the state is, however, substantial. Currently, school property taxes range from 6.7 percent of property values in poor districts to only 4.1 percent of property values in high property wealth districts. But when looked at on an income basis, the reverse is true. School property taxes average about 4.8 percent of gross income in low property wealth districts and 6.9 percent of income in high property tax wealth districts. In other words, property-poor

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[1]Ibid., p. II-1-2.

districts have a relatively greater income base from which to pay their school taxes while high property wealth districts have greater fixed assets but relatively less current income. Care must be taken, however, to distinguish between tax burden on school districts and tax burdens on individuals since most districts embrace individuals of fairly diverse income and property wealth levels. Thus, while the school tax burden for a school district as a whole may be relatively low, it may be very high for some individuals. In LEAP's final analysis, judgment about the fairness of local school tax systems must be made in the context of the total tax system since one is very dependent on the other.[1]

Iowa's tax system as it has evolved over the past fifteen years was found by the LEAP study to have improved substantially. It found that Iowa has been taking a fiscal stance of less reliance on the increasingly "troublesome" and sensitive local property tax and greater reliance on the more equitable and economically responsive state taxes on income and sales. It found that these two sources now actually exceed the property tax in dollars collected, representing more than forty percent of all state/local tax revenue. It went on to say that recent action taken by the legislature to further revise the personal income tax will expand the percentage further and lessen the relative fiscal

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[1]Ibid., p. II-5.

role of local finances. The impetus behind this basic shift in fiscal responsibility has been the state's ongoing commitment to expand its support for local education.[1]

Major advances have been made in Iowa to lessen the inequity and disequalizing influence of local property taxation. Nearly fifty percent of state general fund appropriations are now earmarked for education and tax replacements. These funds, currently amounting to over five hundred and fifty million dollars have helped to ease the fiscal pressure on the local property tax have resulted in a more responsive and diversified revenue base and a greater degree of interpersonal equity.[2]

Another facet of the tax system to be considered, stated the LEAP report, is the claim on income exerted by various taxes and how this claim varies across Iowa's local subdivisions. Here the question of spatial equity, that is, how does the burden of public program costs vary among the residents of different areas of the state was being addressed. The study was interested in finding out if there was any marked degree of variation in tax burden among political jurisdictions.[3] The study found that when all the major tax burdens are aggregated, the total burden on income

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[1]Ibid.

[2]Ibid., p. II-16.

[3]Ibid.

averages 13.2 percent with a high of 17.2 percent and a low of 10.1 percent. Variations across counties in total tax burden, however, is very low. While the property tax unequivocally exerts a strong disequalizing and inequitable influence, the state component of the tax system works to offset its perverse impact according to the LEAP findings. This again shows that the state efforts to replace local taxes have lessened the perversity of the property tax, but have not destroyed it. The local property tax remains the single major inequitable and disequalizing fiscal influence in Iowa.[1]

The LEAP analysis of tax burdens by school districts reveals much the same situation as found for counties. The personal income tax was found to have a very low degree of variation. Local property taxation, especially the school tax, was found to exhibit a major claim on income and is the main source of variance in the Iowa fiscal system. Major advances in lessening its impact have been made and further improvement will occur as the School Foundation Support Plan percentage support moves toward the eighty percent ceiling. Another way in which the perversity of the property tax has been softened, LEAP found, is through state financed property tax credits.[2]

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[1] Ibid., p. II-22. [2] Ibid., pp. II-22-23.

Summary

The LEAP report summarized its tax equity findings in Iowa's School Finance System as follows:

> Over the last decade the state's commitment to assuming a larger share of local education has been pushed at a rapid pace. Most change has taken place since 1971 and Iowa now funnels nearly $440 million in direct school aid to local communities. It provides an additional $97 million in state financed property tax credits, much of which has an impact on school finance. Each of these two major policy areas has ameliorated the very high and inequitable property tax burden that prevailed in the early/mid-1960's.
>
> The gradual phasing down of local property taxes (relatively and, of late, absolutely) has been made possible by an expanded use of two major state taxes--those on personal income and sales. Where the property tax dominated in the past, these two now rule the state's fiscal scene. This has elicited the following responses in the overall state/local tax system:
>
> --A reduction in the level, regressive incidence and fiscal disequalization of the local property tax.
>
> --A shift in the incidence of the total tax system toward a proportional distribution of tax burdens.
>
> --A movement toward higher tax revenue elasticity as a result of the increased role of the personal income tax and a decreased role for the property tax.
>
> --A better balance of revenue instruments among the property, sales, and personal income tax to diversify revenue sources.
>
> While progress has been commendable, several "trouble spots" remain. They all relate to the local property tax:
>
> --It remains a major source of revenue and has a high level of burden, inequitable incidence, and is less responsive tax base.

--It continues to hit harder on the farm or rural sectors of the state, often producing burdens twice as great as for the entire state or the non-farm sector.

--Its burden and impact varies widely across the state's counties and school districts, contributing to disequalization on the revenue side of the budget.

--Payment of the tax is not clearly associated with one's capacity to bear the cost of public programs. Its impact tends to hit harder on those with a lower ability-to-pay.

--The state financed tax replacements, while they do lower the overall impact of the tax, do not link, except in a crude way, relief to the need for relief. Thus, many persons receiving tax credits receive them by virtue of being in a certain category (e.g., owners of agricultural land) rather than by being in need of tax relief.[1]

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[1]Ibid., pp. II-29-30.

Chapter 3

METHODS AND PROCEDURES

Information in this chapter concerns itself with the research design that was used to study the differences in school district satisfaction and educational program quality among different size rural school districts in Iowa. It includes: (1) statements of the null hypotheses, (2) sample selections, (3) survey instruments, (4) procedures for contacting schools and administering the instruments, (5) collection of data, and (6) method of data analysis.

STATEMENT OF THE NULL HYPOTHESES

The following null hypotheses are to be tested:

1. There is no difference in the amount of student satisfaction with their school among school districts with enrollments below 750, those with enrollments of 1000-1999, and those organized on a countywide basis.

2. There is no difference in the amount of teacher satisfaction with their school among school districts with enrollments below 750, those with enrollments of 1000-1999, and those organized on a countywide basis.

3. There is no difference in the amount of parent satisfaction with their school among school districts with enrollments below 750, those with enrollments of 1000-1999, and those organized on a countywide basis.

1a. There is no difference in the amount of student satisfaction with their school between school districts with enrollments below 750 and those with enrollments of 1000-1999.

1b. There is no difference in the amount of student satisfaction with their school between school districts with enrollments below 750 and those organized on a countywide basis.

1c. There is no difference in the amount of student satisfaction with their school between school districts with enrollments of 1000-1999 and those organized on a countywide basis.

2a. There is no difference in the amount of teacher satisfaction with their school between school districts with enrollments below 750 and those with enrollments of 1000-1999.

2b. There is no difference in the amount of teacher satisfaction with their school between school districts with enrollments below 750 and those organized on a countywide basis.

2c. There is no difference in the amount of teacher satisfaction with their school between school districts with enrollments of 1000-1999 and those organized on a countywide basis.

3a. There is no difference in the amount of parent satisfaction with their school between school districts with enrollments below 750 and those with enrollments of 1000-1999.

3b. There is no difference in the amount of parent satisfaction with their school between school districts with enrollments below 750 and those organized on a countywide basis.

3c. There is no difference in the amount of parent satisfaction with [illegible]ol between school districts with enrollments of 1000-1999 and those organized on a countywide basis.

4. There is no rleationship between school district enrollment size and forty-two other input and output variables of educational program quality.

5. None of the forty-two input and output variables of educational program quality are related to the other forty-two factors of quality.

6. There is no difference in the percentage of average daily attendance between school districts with enrollments below 750 and those with enrollments of 1000-1999.

7. There is no difference in the percentage of average daily attendance between schcol districts with enrollments below 750 and those organized on a countywide basis.

8. There is no difference in the percentage of average daily attendance between school districts with enrollments of 1000-1999 and those organized on a countywide basis.

9. There is no difference in the percentage of students participating in five or more extra-curricular activities between school districts with enrollments below

750 and those with enrollments of 1000-1999.

10. There is no difference in the percentage of students participating in five or more extra-curricular activities between school districts with enrollments below 750 and those organized on a countywide basis.

11. There is no difference in the percentage of students participating in five or more extra-curricular activities between school districts with enrollments of 1000-1999 and those organized on a countywide basis.

12. There is no difference in the percentage of students not participating in extra-curricular activities between school districts with enrollments below 750 and those with enrollments of 1000-1999.

13. There is no difference in the percentage of students not participating in extra-curricular activities between school districts with enrollments below 750 and those organized on a countywide basis.

14. There is no difference in the percentage of students not participating in extra-curricular activities between school districts with enrollments of 1000-1999 and those organized on a countywide basis.

SCHOOL DISTRICT SAMPLE SELECTION

Eighteen 1975-76 rural Iowa school districts were used in the study. Sixteen of the districts were among the fifty participants in the Legislators' Education Action Project

study. Schools participating in the LEAP study were chosen through a stratified random selection procedure in which the probability of selection was inverse to the number of school districts in certain enrollment cohorts. Their initial sample was modified by superimposing a geographic area probability on the original sample. The object of this procedure was to assure that each of the State's fifteen Area Education Agencies would be in their sample, and relatedly, that the sample would reflect their fairly diverse fiscal, educational, and demographic characteristics. Final adjustments were made to exclude school districts which had recent turnover in key personnel that would limit information gathering potential. Substitutions within each AEA were made strictly from a list of all school districts not thus far included in their sample.[1]

For purposes of this study only those school districts in the LEAP study that had kindergarten through twelfth grade enrollments below 750 or between 1000-1999 were asked to participate. Twelve of the possible fifteen school districts with enrollments below 750 gave their consent. The enrollments of these twelve districts ranged from a low of 191 to a high of 748. Four of the seven possible school districts

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[1]The Legislators' Education Action Project, National Conference of State Legislatures, An Assessment of the Tax and Expenditure Equity of Iowa's School Finance System (Washington, D.C.: Government Printing Office, February 23, 1976).

with enrollments of 1000-1999 agreed to participate. The enrollment in these four districts ranged from 1035 to 1952.

The two countywide units that agreed to participate in the study were selected because they are the only two such school districts presently in existence in Iowa. Their 1975-76 enrollments were 1835 and 3019 respectively. Neither of the countywide school districts were participants in the LEAP study.

SAMPLE POPULATIONS WITHIN SCHOOL DISTRICTS

For the purpose of measuring school district satisfaction three sample populations within each of the participating school districts were used which included all eleventh grade students, their parents, and all the teachers on the school districts' staffs.

The eleventh grade classes were chosen to represent the study's student populations because it was felt that this group of students, at the time the study was to be conducted, would have nearly completed their second or third year of high school depending upon its organizational structure. Therefore, they would have a good general knowledge of the school's overall educational program; they would have had time to establish their likes and dislikes about their high school experiences; and, they would have one more year of high school to complete before they graduated which would make their responses more meaningful.

The parents of the participating eleventh grade students were chosen to represent the study's parent population because it was felt that a greater percentage of parent responses could be obtained from those parents whose students were participating in the study. The cost and ease of administering the parent questionnaires were also considered as factors when selecting this group to represent the parent population.

All the teachers in each district were included in the teacher's population

INSTRUMENTS FOR MEASURING SCHOOL SATISFACTION

Three different questionnaire instruments were designed by the researcher for the purposes of measuring student, parent and teacher satisfaction with their school district. Ideas for items included on the student and parent questionnaires were borrowed from various sample survey instruments including those developed by the State Department of Public Instruction and national pollster, George Gallop. The researcher also incorporated his own ideas in developing the questions. Items on the teacher questionnaire were designed by the researcher and were developed around Herzberg's theory of job satisfiers and dissatisfiers which he describes in his book, The Motivation of Work.[1]

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[1] F. Herzberg, B. Mausner, and B. B. Snyderman, The Motivation of Work (2nd ed.; New York: Wiley, 1959).

The student questionnaire contained nine different questions, the parent questionnaire had eleven questions, and the teacher questionnaire consisted of eight questions. The items on each of the three instruments were short single sentence questions and required a response of either very satisfied, somewhat satisfied, somewhat dissatisfied or very dissatisfied. The respondents were required to answer either positively or negatively to the questions. There was no allowance for a neutral response. Responses were given the following weightings for the purpose of tabulating a final score: Very satisfied (+2), somewhat satisfied (+1), somewhat dissatisfied (-1), and very dissatisfied (-2).

The instruments were designed so as to allow all the necessary information to fit on one eight and one-half inch by fourteen inch sheet of paper which included a brief explanation of the purpose for doing the study, the directions for completing the questionnaire, and the questions. Keeping the questionnaire to a single sheet was done in an effort to enhance the possibility of gaining a greater rate of return. The questionnaires were color coded in order to simplify their distribution to the different groups, as well as to make it easier to sort and tabulate them when they were returned.

A letter was sent to each person responsible for helping to conduct the study in his or her school district. The letter included information concerning how the materials

were to be distributed, administered, collected, and returned. A personal thank you was also included for their assistance and cooperation in helping with the study. Copies of the questionnaire instruments and letters are located in Appendix C.

PROCEDURE FOR CONTACTING SCHOOLS AND ADMINISTERING THE INSTRUMENT

A personal telephone call by the writer was made to each superintendent in the twenty-two schools that had participated in the LEAP study and whose enrollments were in the categories of 750 or below and between 1000-1999. The two superintendents of the countywide school districts also received personal calls. The purpose of calling was to get the superintendents' tentative approval for allowing their districts to participate in the satisfaction study. They were informed that they would receive a copy of the questionnaire instruments before giving their final approval. All twenty-four district superintendents gave their tentative approval over the telephone. After reading the questionnaires and becoming aware of the work that would be involved in administering the questionnaires, eighteen school districts gave their final approval. Two districts said they did not feel that they had the available time necessary to participate, one school district declined to participate because of its present conditions in the school, one district had just

completed a needs assessment study and did not feel that it wanted to do another similar type of study at that time, and two districts did not give their reasons for not participating.

Those schools that agreed to participate completed an information sheet which gave the person or persons that would be in charge of distributing, administering, and collecting the questionnaires. Information concerning the number of questionnaires that would be needed in each category and the percent of high school students participating in extra-curricular activities was also given. The quantity of questionnaires needed by each district were sent out on April 26, 1976 with instructions to return the materials on or before May 10, 1976.

Student questionnaires numbering 1276 were sent out; 360 going to the two countywide systems, 444 going to the twelve systems with enrollments below 750, and 472 going to the four districts with enrollments of 1000-1999. A total of 1276 parent questionnaires were sent out with the same break down as the student questionnaires. A total of 986 teacher questionnaires went out to the eighteen districts with 269 going to the countywide systems, 378 going to the districts with enrollments below 750, and 339 going to the districts with enrollments of 1000-1999.

COLLECTION OF DATA

Data for the study was collected from two sources: Iowa State Department of Public Instruction files and through direct contact with the participating school districts.

The Department of Public Instruction report, The Graduate - One Year After Fiscal Year 1974, provided the information concerning the percentage of graduates who went on for post-secondary training, were unemployed, and whose status was unknown. The Dropout Fiscal Year 1975 provided the information concerning the percent of dropouts in grades seven through twelve. The Department of Public Instruction's collection of School District 1974-75 Secretary's Annual Reports provided the information concerning student average daily attendance. The Department of Public Instruction's Management Information Division provided data concerning per pupil costs, formula enrollments, pupil/teacher ratios, number of high school units offered, average teacher salaries, and average years of teacher experience in a district. Information concerning school district expenditures and receipts was collected from the Department of Public Instruction reports entitled, Iowa Public School Data and General Fund Expenditure Computation produced by the Department's Division of Administration and Finance.

The information that was collected through direct contact with the participating schools included: personal

information on teachers and eleventh grade students, information concerning the satisfaction of students, parents and teachers with their school, and the percentage of eleventh grade students that participated in one or more extra-curricular activities.

METHODS OF DATA ANALYSIS

An analysis of variance was used to test the first three null hypotheses. In order to assess the significance of mean differences between the groups (sub null hypotheses 1a through 3c) individual t-tests were run between each pair of groups.

Pearson Product Moment correlations were used to test the fourth and fifth null hypotheses. The Pearson correlation coefficients were illustrated on correlation matrix tables and those which were significant at the .001, .01, and .05 levels were noted.

Individual t-tests were run between each pair of groups in order to assess the significance of differences in the percentage of average daily attendance, percentage of student participation in five or more extra-curricular activities, and the percentage of non-student participation in extra-curricular activities between the groups. These tests were used on null hypotheses six through fourteen.

The conventionally accepted levels of probability were used throughout the study for rejecting null hypotheses

and indicating the magnitude of the relationships and differences that were under investigation.

Chapter 4

FINDINGS

INTRODUCTION

Chapter Four is written in five parts, each part presenting the findings for the specific tasks of the given problem.

Restatement of the Problem

What is the current state of affairs for Iowa school districts who are operating under the Iowa Foundation Plan? A plan which was designed to accomplish the five purposes outlined in the principles established by the Governor's Educational Advisory Committee.

1. The first and major task is to determine what constitutes quality education. A definition developed by the writer from authorities will be used to compare the quality of education being offered in different rural school districts of varying enrollment size.

2. The second task will be to show what progress has been achieved on a statewide basis toward providing equity in financing education under the Iowa Foundation Plan.

3. The third task will be to develop a definition for efficient operations of local school districts and to determine if the State's insistence upon efficiency has brought

about a major shift in school district organizational structure since 1971. Is reorganization a means of achieving greater local school district efficiency?

4. The fourth task is to look at the problem of providing meaningful evaluation of local school districts and the State system in its entirety and to describe what evaluative information is collected by the State in order for citizens to know the relative educational standing of their district.

5. The fifth and final task will be to define local flexibility, to show what flexibility(ies) exist within the Iowa Foundation Plan, and to what extent Iowa schools have opted to use this flexibility(ies).

PART I

QUALITY

According to those authorities discussed in Chapter Two, equality of educational opportunity is not determined so much by equality of resource inputs, but by the power of these resources in bringing about desired achievement and attitude outputs. For purposes of this study a combined authoritative definition for quality has been developed by the writer which emphasizes factors of program output rather than factors of resource input. The definition was operationalized by the measures of satisfaction. The nominal

definition is as follows:

> A school that offers a quality education program is one that provides an incentive for students to want to attend and remain in attendance until they graduate. It is one that produces graduates that are qualified to go on for further schooling or have the required basic skills to become gainfully employed. It is a school that knows the status of its graduates so that it can evaluate its program in terms of its finished product. It is a school that promotes and accommodates active student participation in co-curricular activities in order to further develop individual student interests and talents. It is a school that produces attitudes of satisfaction with the school among its students, parents, and teachers on its many different aspects. It is a school with an educational program that its students are proud of and its parents are willing to financially support.

NULL HYPOTHESIS ONE THROUGH THREE

1. There is no difference in the amount of student satisfaction with their school among school districts with enrollments below 750, those with enrollments of 1000-1999, and those organized on a county-wide basis.

2. There is no difference in the amount of teacher satisfaction with their school among school districts with enrollments below 750, those with enrollments of 1000-1999, and those organized on a county-wide basis.

3. There is no difference in the amount of parent satisfaction with their school among school districts with enrollments below 750, those with enrollments of 1000-1999, and those organized on a county-wide basis.

Table 1 summarizes the information on the total number of student, teacher, and parent questionnaires that were sent out, the number of responses that were returned and the percentage of returns for each size category and totals for all categories. The greatest number of possible returns were received from the teacher's group. Seventy-five and four-tenths percent were returned from districts with enrollments below 750, 78.2 percent were returned from districts with enrollments of 1000-1999, and 75.8 percent were returned from the countywide districts for a total teacher return of 76.5 percent from all three categories.

Table 1

Student, Teacher, and Parent Questionnaire Responses

Size Category	Students Tot.	Students Response	Students %	Teachers Tot.	Teachers Response	Teachers %	Parents Tot.	Parents Response	Parents %
Below 750	444	399	89.7	378	285	75.4	399	186	46.6
1000-1999	472	362	76.7	339	265	78.2	362	90	24.7
County-wide	360	177	49.2	269	204	75.8	177	54	30.5
Totals	1276	938	73.5	986	754	76.5	938	330	35.2

The total student return was 73.5 percent. Eighty-nine and seven-tenths percent were returned from districts with enrollments below 750, 76.7 percent were returned from

districts with enrollments of 1000-1999, and 49.2 percent were returned from countywide districts.

The poorest number of possible returns were received from the parent's group. Forty-six and six-tenths percent were returned from districts with enrollments below 750, 24.7 percent were returned from districts with enrollments of 1000-1999, and 30.5 percent were returned from countywide districts for a total parent return of 35.2 percent.

Table 2 summarizes the results of the analysis of variance test on student satisfaction scores by school district size. The F-test value was 9.634. It was significant at the .001 level; therefore, the null hypothesis that there is no difference in the amount of student satisfaction with their school among school districts with enrollments below 750, those with enrollments of 1000-1999, and those organized on a countywide basis is rejected. In order to assess the significance of mean differences between the groups individual t-tests were run between each pair of groups. The results of the t-tests are shown in Table 3.

Table 3 summarizes the results of the t-tests which were used to test the following three sub hypotheses:

1a. There is no difference in the amount of student satisfaction with their school between school districts with enrollments below 750 and those with enrollments of 1000-1999.

1b. There is no difference in the amount of student

Table 2

ANOVA Summary Table: Student Satisfaction Scores by School District Size

SOURCE OF VARIATION	Degrees of Freedom	Sum of Squares	Mean Square	F
Between Groups	2	834.466	417.233	9.634***
Within Groups	935	40,491.466	43.306	
Total	937	41,325.932		

*** p < .001

Table 3

Results of t-Tests of Mean Differences in Student Satisfaction Scores Between Each Pair of School District Size Groups

Group	Number	Mean Square w	$\bar{X}$	$S_{\bar{x}-\bar{x}}$	t
Below 750	399	43.306	6.07		
				.478	3.66***
1000-1999	362	43.306	4.32		
Below 750	399	43.306	6.07		
				.594	3.62***
Countywide	177	43.306	3.92		
1000-1999	362	43.306	4.32		
				3.64	.11
Countywide	177	43.306	3.92		

*** p < .001

satisfaction with their school between school districts with enrollments below 750 and those organized on a countywide basis.

1c. There is no difference in the amount of student satisfaction with their school between school districts with enrollments of 1000-1999 and those organized on a countywide basis.

Table 3 shows that the t-test values for the first and second pairs of groups were 3.66 and 3.62. Both were significant beyond the .001 level, therefore the null hypotheses 1a and 1b were rejected. The paired comparisons showed that the mean difference in student satisfaction among school districts with enrollments below 750, those with enrollments of 1000-1999, and the countywide systems was in favor of the schools with enrollments below 750 in both instances. There was no significant mean difference in student satisfaction between school districts with enrollments of 1000-1999 and those organized on a countywide basis, therefore sub null hypothesis 1c is retained.

The findings on student satisfaction show that satisfaction with their school is greater in school districts with enrollments below 750 students.

Table 4 summarizes the results of the analysis of variance test on teacher satisfaction scores by school district size. The F-test value was 4.343. It was significant at the .013 level which was less than .05; therefore, the

null hypothesis that there is no difference in the amount of teacher satisfaction with their school among school districts with enrollments below 750, those with enrollments of 1000-1999, and those organized on a countywide basis is rejected. In order to assess the significance of mean differences between the groups individual t-tests were run between each pair of groups. The results of the t-tests are shown in Table 5.

Table 4

ANOVA Summary Table: Teacher Satisfaction Scores by School District Size

SOURCE OF VARIATION	Degrees of Freedom	Sum of Squares	Mean Square	F
Between Groups	2	334.169	167.085	4.343*
Within Groups	751	28,893.105	38.473	
Total	753	29,227.275		

* $p < .013$

Table 5 summarizes the results of the t-tests which were used to test the following three sub hypotheses:

2a. There is no difference in the amount of teacher satisfaction with their school between school districts with enrollments below 750 and those with enrollments of 1000-1999.

2b. There is no difference in the amount of teacher satisfaction with their school between school districts with enrollments below 750 and those organized on a countywide basis.

2c. There is no difference in the amount of teacher satisfaction with their school between school districts with enrollments of 1000-1999 and those organized on a countywide basis.

Table 5

Results of t-Tests of Mean Differences in Teacher Satisfaction Scores Between Each Pair of School District Size Groups

Group	Number	Mean Square w	$\bar{X}$	$S_{\bar{x}-\bar{x}}$	t
Below 750	285	38.473	6.42		
				.529	2.344*
1000-1999	265	38.473	5.18		
Below 750	285	38.473	6.42		
				.569	.545
Countywide	204	38.473	6.73		
1000-1999	265	38.473	5.18		
					2.68**
Countywide	204	38.473	6.73		

* $p < .05$
** $p < .01$

Table 5 shows that the t-test value for the first pair of groups was 2.344. It was significant at the .05 level,

therefore, sub hypothesis 2a was rejected. The paired comparison showed that the difference in teacher satisfaction between school districts with enrollments below 750 and those with enrollments of 1000-1999 was in favor of schools with enrollments below 750. There was no significant mean difference in teacher satisfaction between school districts with enrollments below 750 and those organized on a countywide basis; therefore, sub hypothesis 2b is retained. The t-test value for the third pair of groups was 2.68. It was significant at the .01 level; therefore, sub hypothesis 2c was rejected. The paired comparisons showed that the difference in teacher satisfaction between school districts with enrollments of 1000-1999 and those organized on a countywide basis was in favor of the county units.

The findings on teacher satisfaction show that satisfaction with their school is greater among teachers in school districts with enrollments below 750 students and the countywide units.

Table 6 summarizes the results of the analysis of variance test on parent satisfaction scores by school district size. The F-test value was 2.058. It was not significant at the .01 or .05 levels, therefore, the null hypothesis that there is no difference in the amount of parent satisfaction with their school among school districts with enrollments below 750, those with enrollments of 1000-1999, and those organized on a countywide basis is retained.

Table 6

ANOVA Summary Table: Parent Satisfaction Scores by School District Size

SOURCE OF VARIATION	Degrees of Freedom	Sum of Squares	Mean Square	F
Between Groups	2	279.724	139.862	2.058(NS)
Within Groups	327	22,223.273	67.961	
Total	329	22,502.997		

The findings on parent satisfaction show no significant differences in levels of satisfaction with their school among the three size categories. Although nonsignificant at the .05 level, schools with enrollments below 750 had a higher mean score than did either of the other two groups when t-tests (which are not being shown) were run between each pair of school district size groups. The mean score for districts below 750 was 10.15, for those with enrollments of 1000-1999 it was 8.85 and for the countywide units it was 7.74.

NULL HYPOTHESES FOUR AND FIVE

4. There is no relationship between school district enrollment size and forty-two other input variables and output variables of educational program quality.

5. Other than size none of the other forty-two input variables and output variables of educational program quality are related to one another.

Table 7 summarizes the forty-three different items of information that were collected from each of the eighteen participating school districts. The first column shows the variable number that was assigned to each item and the second column provides a brief description of the input or output variable of educational program quality. Items one through six are the program input variables and items seven through forty-three are the variables of quality program output. The data collected from each school district can be found in the tables in Appendix E.

Table 8 summarizes the results of the Pearson product moment correlation coefficients between school district size and the other forty-two input and output variables of educational program quality. The table shows that there was a significant positive correlation between school district size and variables 2, 4, and 6 (number of high school units being offered, average teacher salaries, and pupil/teacher ratios). The larger the school district size the larger the number of units offered, the higher the average teacher salary, and the bigger the pupil/teacher ratio.

There were significant negative correlations between school district size and variables 3, 9, 10, 15, 17, 18, 21, 35, and 42.

Table 7

Summary Table of Variable Numbers and Quality Variable Descriptions

Variable No.	Quality Variable Description
1	School district size.
2	Number of high school units offered in 1974-75.
3	1976-77 School district cost per pupil.
4	1975-76 Average teacher's salary.
5	1975-76 Average years teaching experience.
6	1975-76 School district's average pupil/teacher ratio.
7	Percent of 1974 graduates going on to post secondary schools or training.
8	Percent of 1974 graduates occupied.
9	Percent of 1974 graduates of known status.
10	Percent of students in grades 7-12 who stayed in school during fiscal year 1975.
11	Percent of 1974-75 Average Daily Attendance.
12	Percent of Junior Class students participating in one or more school extra-curricular activities.
13	Total school district student satisfaction.
14	Total school district teacher satisfaction.
15	Total school district parent satisfaction.
16	Student satisfaction that their school will prepare them for what they plan to do after they graduate from high school.
17	Student satisfaction that they get help from their teachers when they have problems with their studies.

Table 7 (Continued)

Variable No.	Quality Variable Description
18	Student satisfaction that their teachers are interested in them as individuals.
19	Student satisfaction with their opportunities to make friends at their school.
20	Student satisfaction with their school's extra-curricular activity program.
21	Student satisfaction with the recognition they receive for their school accomplishments.
22	Student satisfaction that they are getting as good an education at their school as they would be getting in any other Iowa Public High School.
23	Student satisfaction with their involvement in making decisions that affects what happens at their school.
24	Student pride in their school.
25	Teacher satisfaction with the adequacy of salaries in their school district.
26	Teacher satisfaction with the amount of instructional materials and equipment their school provides.
27	Teacher satisfaction with their working conditions.
28	Teacher satisfaction with their interpersonal relationship with other school district employees.
29	Teacher satisfaction with their status in their communities.
30	Teacher satisfaction with their opportunities for professional growth and development in their school district.
31	Teacher satisfaction with their involvement in making decisions that affect their school.

Table 7 (Continued)

Variable No.	Quality Variable Description
32	Teacher satisfaction with the recognition they receive for achievements they made in their work.
33	Parent satisfaction that their school is providing their children with a good education.
34	Parent satisfaction that their school provides opportunities for their children to meet with success.
35	Parent satisfaction with their children's opportunities to participate in their school's extracurricular activities.
36	Parent satisfaction with the recognition their students receive from their participation in extracurricular activities.
37	Parent satisfaction that their school emphasizes the overall values that are stressed by their community.
38	Parent satisfaction with their involvement in making decisions that affect their school.
39	Parent satisfaction with the information that they receive concerning what their school is doing.
40	Parent satisfaction that their school is putting their tax dollars to good use.
41	Parent satisfaction with the size of their school district in terms of the number of students enrolled.
42	Parent willingness to vote for increased local taxes to support their school's present program.
43	Parent attitude as to the importance of the school to the social life of their community.

Table 8

Pearson Product Moment Correlation Coefficients Between School District Size (Variable 1) and All Other Variables (2 through 43)

Variable	Correlation to Variable 1 Coefficients
2	.779***
3	-.592**
4	.505*
5	.378
6	.664***
7	.077
8	-.294
9	-.432*
10	-.533*
11	-.115
12	-.151
13	-.323
14	.116
15	-.398*
16	.087
17	-.457*
18	-.599**
19	-.088
20	-.049
21	-.473*
22	-.058
23	-.092
24	-.374
25	.220
26	.057
27	-.177
28	-.024
29	.103
30	.233
31	-.023
32	-.005
33	-.192
34	-.060
35	-.524*
36	-.015
37	-.257
38	-.221
39	-.261
40	-.371
41	.093

Table 8 (Continued)

Variable	Correlation to Variable 1 Coefficients
42	-.500*
43	.056

* p < .05
** p < .01
*** p < .001

The smaller the district the higher the cost per pupil; the greater the percentage of known status of graduates; the greater the percentage rate of student retention; the greater the total satisfaction of parents; the greater the satisfaction of students with the help they were getting from their teachers, the interest their teachers showed in them as individuals, and the recognition they felt they received for their school accomplishments; the greater the parent satisfaction with their children's opportunities to participate in extra-curricular activities; and, the greater the willingness of parents to vote to increase their local taxes to support their school's present program.

Table 9 gives the matrix containing the Pearson Correlation Coefficients for variables two through forty-three. The Pearson Correlation was used to test the fifth hypothesis which stated: Other than size none of the forty-two input variables and output variables of educational program quality are related to one another. The matrix shows the positive or negative correlation coefficient for each pair of variables tested. A single star (*) behind the coefficient indicates a correlation at the .05 level of significance, a double star (**) indicates a correlation at the .01 level, and a triple star (***) indicates a correlation at the .001 level.

The information summarized in Table 10 shows that variables 2, 4, and 5 (number of units offered, average

Table 9

Pearson Correlation Coefficients

Variable	2	3	4	5	6	7	8	9	10	11	12	13
2												
3	-.481*											
4	.547**	-.494*										
5	.319	-.680***	.670***									
6	.556**	-.752***	.691***	.532*								
7	.170	.238	.344	-.142	-.051							
8	-.073	.289	.112	.208	-.418*	.176						
9	-.090	.268	.113	.024	-.350	.456*	.669***					
10	-.427*	.699***	-.419*	-.634**	-.378	.216	.011	.229				
11	-.107	.497*	.066	-.170	-.410*	.568**	.411*	.450*	.359			
12	-.026	.207	-.280	-.272	-.185	.184	-.080	.006	.435*	.299		
13	-.109	.256	-.095	-.070	-.265	.181	.238	.050	.258	-.079	.180	

Table 9 (Continued)

Variable	2	3	4	5	6	7	8	9	10	11	12	13
14	.116	-.058	.351	.103	.280	.293	.017	.117	-.015	-.217	-.433*	.200
15	-.260	.509*	-.068	-.279	-.309	.161	.394	.103	.366	.174	.127	.628**
16	.186	.115	.070	-.043	-.182	.398	.139	-.162	-.069	.067	.072	.723***
17	-.415*	.168	-.135	.097	-.287	-.205	.259	.028	.197	-.135	-.167	.767***
18	-.635**	.179	-.231	.095	-.349	-.089	.320	.186	.207	-.131	-.053	.653**
19	.029	-.030	.181	.155	.132	.246	.021	.104	.087	-.173	.388	.460*
20	.182	.326	.139	-.216	-.084	.561**	.220	.217	.402*	.272	.362	.747***
21	-.239	.390	-.214	-.146	-.426*	.090	.230	.021	.232	-.078	.124	.881***
22	.149	.212	.200	.092	.049	.439*	.131	.072	.070	-.372	.053	.596**
23	.131	-.051	-.177	-.051	-.223	-.064	.189	-.005	.085	-.079	.169	.753***
24	-.187	.538*	-.255	-.448*	-.399*	.184	.068	-.064	.456*	.042	.200	.820***
25	.249	-.437*	.511*	.275	.578**	.139	-.253	-.116	-.306	-.476*	-.395	.180
26	-.050	.207	.141	-.115	.142	.131	-.074	-.047	.184	-.093	-.314	.245
27	-.113	.208	.023	.099	-.305	.242	.419*	.561**	.081	.164	-.364	.118
28	-.085	.304	.277	.061	-.024	.562**	.173	.352	.200	.413*	-.172	-.167

Table 9 (Continued)

Variable	2	3	4	5	6	7	8	9	10	11	12	13
29	-.013	.118	.118	-.182	.020	.350	.059	.084	.032	-.118	-.472*	.199
30	.305	-.261	.548**	.297	.467*	.264	.082	.200	-.138	-.279	-.444*	.074
31	.005	-.029	.193	.146	.099	.210	.074	.187	.035	-.152	-.445*	.191
32	-.073	.178	.001	-.185	.056	.168	.019	-.037	.210	-.059	-.201	.140
33	-.253	.128	.144	-.064	.005	.437*	.304	.187	.118	.083	-.099	.274
34	-.246	.208	.050	-.208	-.049	.167	-.109	-.189	.165	.115	-.102	.329
35	-.477*	.500*	-.455*	-.497*	-.488*	-.111	.018	-.072	.316	.119	.430*	.379
36	.007	.324	-.095	-.384	-.144	.036	-.252	-.453*	.221	.050	.294	.409*
37	-.373	.465*	-.267	-.458*	-.277	.134	-.051	-.308	.294	.063	.143	.508*
38	-.280	.329	-.116	-.321	-.082	.121	.015	-.171	.378	.112	.173	.499*
39	-.230	.451*	-.274	-.514*	-.286	.017	.006	-.160	.511*	.114	.122	.524**
40	-.300	.467*	-.254	-.208	-.391	.076	.419*	-.007	.325	.141	.171	.767***
41	.297	-.210	.502*	.200	.544**	.061	-.097	-.082	-.159	.500*	-.165	.244
42	-.433*	.241	-.027	.090	-.254	-.085	.284	-.049	-.085	-.153	-.166	.478*
43	.161	-.055	.083	-.164	.202	.299	-.138	-.115	.094	.142	.315	-.012

Table 9 (Continued)

Variable	14	15	16	17	18	19	20	21	22	23	24	25
14												
15	.148											
16	.197	.335										
17	.063	.462*	.392									
18	.066	.477*	.254	.810***								
19	.007	.220	.176	.130	.333							
20	.337	.587**	.595**	.307	.210	.482*						
21	.191	.601**	.658**	.723***	.557**	.197	.525*					
22	.193	.256	.558**	.252	.241	.514*	.509*	.541**				
23	-.039	.395	.569**	.648**	.398	.070	.513*	.627**	.105			
24	.270	.745***	.617**	.526*	.423*	.310	.742***	.764***	.371	.566**		
25	.792***	-.013	.204	.088	-.028	.076	.211	.185	.216	.031	.107	
26	.830	.327	.098	.150	.097	.060	.451*	.180	.114	-.032	.466*	.562**
27	.615**	-.069	.105	.171	.248	-.158	.147	.137	.021	.013	.098	.190
28	.529*	-.017	.023	.277	-.030	-.046	.094	-.129	.225	-.522*	-.018	.114

Table 9 (Continued)

Variable	14	15	16	17	18	19	20	21	22	23	24	25
29	.873***	.230	.292	.075	.106	-.050	.347	.156	.075	.013	.359	.580**
30	.928***	-.027	.097	-.022	-.058	.041	.248	.041	.178	-.096	.028	.826***
31	.893***	.011	.202	.174	.157	-.217	.157	.281	.149	.050	.187	.640**
32	.785***	.402*	.117	-.000	.059	-.264	.248	.245	-.002	.019	.359	.468*
33	.174	.525*	.241	.227	.405*	.074	.205	.280	.349	.033	.114	.169
34	.282	.704***	.212	.307	.332	-.014	.343	.283	-.068	.232	.545**	.177
35	-.301	.674***	.053	.283	.323	.250	.308	.423*	-.044	.254	.579**	-.255
36	-.277	.455*	.412*	.212	-.011	.340	.409*	.345	.200	.279	.621**	-.142
37	.083	.813***	.427*	.318	.415*	.163	.431*	.485*	.216	.242	.732***	-.022
38	.247	.838***	.279	.317	.407*	.149	.549**	.390	.112	.316	.704***	.104
39	.254	.767***	.322	.434*	.272	-.126	.534*	.525*	-.086	.530*	.795***	.076
40	.187	.802***	.582**	.602**	.592**	.092	.602**	.747***	.377	.546**	.744***	-.006
41	.494*	.282	.059	.011	-.040	.506*	.308	.191	.434*	-.078	.228	.696***
42	.024	.625**	.324	.476*	.634**	.289	.070	.555**	.409*	.098	.449*	.048
43	-.289	.137	.061	-.238	-.280	.040	.065	.051	.278	.015	-.055	-.022

Table 9 (Continued)

Variable	26	27	28	29	30	31	32	33	34	35	36	37
26												
27	.470*											
28	.403*	.610**										
29	.794***	.595**	.443*									
30	.656**	.555**	.447*	.734***								
31	.634**	.755***	.566**	.728***	.812***							
32	.717***	.412*	.467*	.722***	.597**	.758***						
33	-.005	-.080	.159	.261	.152	.116	.298					
34	.481*	-.534	.086	.405*	.037	.144	.509*	.402*				
35	.058	-.363	-.379	-.150	-.497*	-.439*	-.023	.116	.505*			
36	.029	-.550**	-.367	-.102	-.389	-.471*	-.209	-.043	.387	.599**		
37	-.152	-.230	-.001	.273	-.197	-.066	.393	.465*	.804***	.697***	.593**	
38	.494*	-.124	.057	.306	-.004	.087	.550**	.402*	.828***	.607**	.397	.884***
39	.488*	.007	-.100	.371	.014	.192	.571**	.200	.753***	.573**	.478*	.740***
40	.326	.132	.012	.237	-.015	.191	.434*	.415*	.467*	.483*	.256	.713***
41	.412*	-.175	-.028	.282	.575**	.196	.224	.194	.116	.049	.208	.128
42	.032	-.098	.029	.021	-.108	.002	.092	.440*	.375	.443*	.280	.605**
43	-.402*	-.665***	-.200	-.335	-.249	-.315	-.071	.429*	-.008	.110	.232	.145

Table 9 (Continued)

Variable	38	39	40	41	42
38					
39	.319***				
40	.744***	.689***			
41	.200	.047	.034		
42	.458*	.219	.547**	.316	
43	.119	-.002	-.007	.184	.069

teachers salary, and average years of teaching experience) were positively correlated with the same variables with which size was positively correlated. It also shows that variable 3 (cost per pupil) was negatively correlated with the same variables with which size was negatively correlated. In addition there were positive correlations between variable 3 (cost per pupil) and variables 11, 15, 24, 37, 39 and 40. The higher the cost per pupil the higher the percentage of average daily attendance (11), the more positive the total attitude of parent satisfaction (15), student pride (24), parent satisfaction that their school emphasizes the overall values that are stressed by their school (37), parent satisfaction with the amount of information they receive about what their school is doing (39), and that their tax dollars are being put to good use (40). A significant negative correlation was found to exist between cost per pupil and teacher satisfaction with the adequacy of their salaries (25). The higher the cost per pupil the less satisfaction teachers expressed with the adequacy of their salaries.

There was a significant positive correlation between variable 4 (average teacher's salary) and variables 5, 25, and 30 (average years teaching experience, satisfaction with salaries, and opportunities for professional growth). The higher the average teacher's salary the higher their years of teaching experience (5), the more positive their attitude toward the adequacy of their salaries (25), and opportunities

for professional growth (30). A significant negative correlation was found to exist between average teacher's salary and variable parent satisfaction with the size of their district (41). The higher the average teacher's salary the more negative the parents attitude toward being satisfied with the size of their district's student enrollment.

There was a negative correlation between variable 5 (average teaching experience) and variable 24 (student pride in their school). The greater the number of average years teaching experience the more negative the attitude of student pride toward their school.

There were significant negative correlations between variable 6 (pupil/teacher ratio) and variables 8, 11, 21, 24, 35 and 41 and significant positive correlations between variable 6 and variables 25 and 30. The higher the pupil/teacher ratio the lower the percentage of graduates occupied (8), the lower the percentage of average daily attendance (11), the more negative the attitude of student satisfaction toward the recognition they receive for their school accomplishments (21) and their pride in their school (24), and the more negative the attitude of parents toward their student's opportunities to participate in extra-curricular activities (35), and the size of their school district's student enrollment (41). The higher the pupil/teacher ratio the more positive the attitude of teacher satisfaction toward the adequacy

of their salaries (25) and opportunities for professional growth (30).

There were significant positive correlations between variable 7 (percent of graduates going on to school) and variables 9, 11, 20, 22, 28 and 33. The higher the percentage of graduates that went on to school the higher the percentage of graduate known status (9), the percentage of average daily attendance (11), the more positive the attitude of student satisfaction toward their school's extra-curricular activity program (20) and that they were getting as good an education at their school as they would be getting in any other Iowa public school (22), the more positive the attitude of teacher satisfaction toward their interpersonal relationship with other employees (28); and the more positive the attitude of parent satisfaction that their school is providing their children with a good education (33).

There were significant positive correlations between variable 8 (percent of graduates occupied) and variables 9, 11, 27 and 40. The higher the percentage of graduates occupied, the higher the percentage of graduates known status (9), the percentage of average daily attendance (11), teacher satisfaction with their working conditions (27), parent satisfaction that their tax dollars are being put to good use (40).

There were significant positive correlations between variable 9 (known status of graduates) and variables 11, 27,

and 36. The higher the percentage of known status of graduates the higher the percentage of average daily attendance (11), the more satisfied teachers were with their working conditions (27), and the more positive the attitude of parent satisfaction toward the recognition their students receive from their participation in extra-curricular activities (36).

There were significant positive correlations between variable 10 (percent of students in grades 7-12 who stayed in school) and variables 12, 20, 24 and 39. The higher the percentage of students who stayed in school, the higher the percentage of students who participated in extra-curricular activities (12), the more positive the attitude of student satisfaction with their school's extra curricular activity program (20) and their pride in their school (24), and the more positive the attitude of parent satisfaction toward the information they receive concerning what their school is doing (39).

There was a significant positive correlation between variable 11 (the percent of average daily attendance) and variable 28. The higher the average daily attendance the more positive the attitude of teacher satisfaction toward their relationship with other school district employees. There was a significant negative correlation between variable 11 and variables 25 and 41. The higher the percentage of average daily attendance the more negative the attitude of

teacher satisfaction toward the adequacy of their salaries (25) and the more negative the attitude of parent satisfaction toward the size of their school district's student enrollment (41).

There was a significant positive correlation between variable 12 (percent of students participating in one or more extra-curricular activities) and variable 35 (parent satisfaction with their student's opportunities to participate in extra-curricular activities. The higher the percentage of participation the more positive the attitude of parent satisfaction toward their student's opportunities to participate. There were significant negative correlations between variables 12 and variables 14, 29, 30, and 31. The higher the percentage of students participating in extra-curricular activities the more negative the attitude of teachers toward their total satisfaction (14), their satisfaction with their status in the community (29), their satisfaction with their opportunities for professional growth and development (30), and their involvement in making decisions that affect their school (31).

There were significant positive correlations between variable 13 (total student satisfaction) and all the individual student satisfaction variables (15 through 24). There were also significant positive correlations between variable 13 and variables 15, 36, 37, 38, 39, 40, and 42. The more positive the attitude of total student satisfaction the more

positive the attitude of total parent satisfaction (15), and specifically the attitudes of parent satisfaction toward the recognition their students receive from their participation in extra-curricular activities (36), that their schools stressed the values of the community (37), parent involvement in making decisions that affect the school (38), the information they receive concerning what the school is doing (39), that their tax dollars are being put to good use (40) and being willing to vote to increase local taxes to support their school's present program. No significant positive or negative correlations existed between variable 13 and any of the teacher satisfaction variables (14 and 25 through 32).

There was one significant negative correlation between variable 14 (total teacher satisfaction) and variable 12 (student participation in extra-curricular activities) which was explained earlier. Variable 14 did not correlate significantly with any of the other variables other than the individual teacher satisfaction variables (25 through 28) which correlated positively. The only exception was the positive correlation with variable 41. The greater the attitude of total teacher satisfaction the more positive the attitude of parent satisfaction with the size of their school district's enrollment.

In addition to those sighted earlier there were significant positive correlations between variable 15 (total parent satisfaction) and the individual parent satisfaction

variables (32 through 40 and 42). There were no significant correlations between variable 15 and parent satisfaction with the size of their school district's enrollment and their attitude as to the importance of the school to the social life of their community (variables 41 and 43).

Variable 15 correlated positively with the individual student satisfaction variables 17, 18, 20, 21, and 24 and the individual teacher satisfaction variable 32. The more positive the attitude of total parent satisfaction the more positive the attitude of student satisfaction toward the help they get from their teachers (17), the interest their teachers show in them as individuals (18), their school's extra curricular activity program (20), the recognition they receive for their school accomplishments (21), the pride they have in their school (24), and the attitude of teacher satisfaction toward the recognition that they receive for achievements they make in their work.

During the remainder of this explanation of the significant correlations which were shown to exist in Table 10, attention will be given to only those correlations not previously explained and additional correlations which will be discussed will not be repeated a second time.

There was a significant positive correlation between variable 16 (student satisfaction that their school will prepare them for what they plan to do after they graduate from high school) and variables 36, 37, and 40. The more

positive the attitude of student satisfaction the more positive the attitude of parent satisfaction toward the recognition their students receive from their participation in extra-curricular activities (36), that the school stressed the values of the community (37), and their school is putting their tax dollars to good use (40).

There was a significant positive correlation between variable 17 (student satisfaction with the help they get from their teachers) and variables 39, 40, and 42. The more positive the attitude of student satisfaction the more positive the attitude of parent satisfaction toward the information they receive concerning what their school is doing (39), their school putting their tax dollars to good use (40), and their willingness to vote for increased local taxes to support their school's present program.

There was a significant positive correlation between variable 18 (student satisfaction with the help they are getting from their teachers) and variables 33, 37, 38, 40, and 42. The more positive the attitude of student satisfaction the more positive the attitude of parent satisfaction that their children were receiving a good education (33), that the school stressed the values of the community (37), that parents were involved in making decisions that affect the school (38), that their tax dollars were being put to good use (40), and toward their willingness to vote increased local taxes to support their school's present program (42).

There was a significant positive correlation between variable 19 (student satisfaction with their opportunities to make friends at their school) and variable 41 (parent satisfaction with the size of their school district's enrollment). The more positive the student satisfaction the more positive the parent satisfaction.

There were significant positive correlations between variable 20 (student satisfaction with their school's extra-curricular activity program) and variables 26, 36, 37, 38, 39, and 40. The more positive the attitude of student satisfaction the more positive the attitude of teacher satisfaction toward the amount of instructional materials and supplies their school provides (26), the more positive the attitude of parent satisfaction toward the recognition their students receive from their participation in extra-curricular activities 36), that the school stressed the values of the community (37), parent involvement in making decisions that affect their school (38), the information they receive concerning what their school is doing (39), and their tax dollars being put to good use (40).

There were significant positive correlations between variable 21 (student satisfaction with the recognition they receive for their school accomplishments) and variables 35, 37, 39, 40, and 42. The more positive the attitude of student satisfaction the more positive the attitude of parent satisfaction toward their children's opportunities to

participate in extra-curricular activities (35), that the school stressed the values of the community (37), the information they receive concerning what their school is doing (39), their school is putting their tax dollars to good use (40), and their willingness to vote increased local taxes to support their school's present program (42).

There were significant positive correlations between variable 22 (student satisfaction that they are getting as good an education in their school as they would be getting in any other Iowa public school) and variables 41 and 42. The more positive the student satisfaction attitude the more positive the attitude of parent satisfaction toward the size of their school district's enrollment (41) and their willingness to vote for increased taxes to support their school's present program (42).

There were significant positive correlations between variable 23 (student satisfaction with the involvement in making decisions that affect their school) and variables 24, 39, and 40. The more positive the attitude of student satisfaction with making decisions the more positive their attitude of satisfaction toward their pride in their school (24), the more positive the attitude of parent satisfaction toward the information they receive concerning what their school is doing (39), and their tax dollars are being put to good use (40). There was a significant negative correlation between variable 23 and variable 28. The more positive the attitude

of student satisfaction the more negative the attitude of teacher satisfaction toward their interpersonal relationship with other school district employees.

There were significant positive correlations between variable 24 (student pride in their school) and variables 26, 34, 35, 36, 37, 38, 39, and 40. The more positive the attitude of student pride in their school the more positive the attitude of teacher satisfaction toward the amount of instructional materials and equipment their school provides (26), the more positive the attitude of parent satisfaction toward the opportunities their school provides for their children to meet with success(34), their children's opportunities to participate in extra-curricular activities (35), the recognition their students receive from their participation in extra-curricular activities (36), the school stressed the values of the community (37), parent involvement in making decisions that affect their school (38), the information they receive concerning what their school is doing (39), and their tax dollars are being put to good use (40).

There was a significant positive correlation between variable 25 (teacher satisfaction with the adequacy of their salary) and variable 41 (parent satisfaction with the size of their school district's enrollment). The more positive the attitude of teacher satisfaction the more positive the attitude of parent satisfaction.

There were significant positive correlations between

variable 26 (teacher satisfaction with the amount of instructional materials and equipment their school provides) and variables 34, 38, 39, and 41. The more positive the attitudes of teacher satisfaction the more positive the attitude of parent satisfaction toward their children's opportunities to meet with success (34), their involvement in making decisions that affect the school (38), the information they receive concerning what their school is doing (39), the size of their school district's enrollment (41). There was a significant negative correlation between variable 26 and 43 (parent attitude toward the importance of the school to the social life of their community). The more positive the attitude of teacher satisfaction the more negative the attitude of parents toward the importance of the school to the social life of the community.

There were positive correlations between variable 27 (teacher satisfaction with their working conditions) and the other teacher satisfaction variables 26, 28, 29, 30, 31 and 32. There were significant negative correlations with variable 27 and variables 41 and 43. The more positive the teacher satisfaction toward their working conditions the more negative the parent attitude toward the size of their school district (41) and the importance of the school to the social life of their community (43).

There was a significant positive correlation between variable 29 (teacher satisfaction with their status in the

community) and variable 34 (parent satisfaction that their school provides their children with opportunities to meet with success). The more positive the attitude of teacher satisfaction the more positive the attitude of parent satisfaction.

There was a significant negative correlation between variable 30 (teacher satisfaction with their opportunities for their professional growth and development) and variable 35 (parent satisfaction with their children's opportunities to participate in extra-curricular activities). The more positive the attitude of teacher satisfaction the more negative the attitude of parent satisfaction. There was a significant positive correlation between variable 30 and variable 41 (parent satisfaction with the size of their school district's enrollment). The more positive the teacher satisfaction the more positive the attitude of parent satisfaction.

There were significant negative correlations between variable 31 (teacher satisfaction with their involvement in making decisions) and variables 35 and 36. The more positive the attitude of teacher satisfaction the more negative the attitude of parent satisfaction toward their children's opportunities to participate in extra-curricular activities (35) and the recognition their children receive from their participation in extra-curricular activities (36).

There were significant positive correlations between variable 32 (teacher satisfaction with the recognition they

receive for achievements they make in their work) and variables 34, 38, 39, and 40. The more positive the attitude of teacher satisfaction the more positive the attitude of parent satisfaction toward their school providing opportunities for their children to meet with success (34), parent involvement in making decisions that affect their school (38), the information they receive concerning what their school is doing (39), and their school is putting their tax dollars to good use (40).

Variables 33 through 43 (parent satisfaction items) generally had significant positive correlations with one another.

NULL HYPOTHESES SIX THROUGH FOURTEEN

6. There is no difference in the percentage of average daily attendance between school districts with enrollments below 750 and those with enrollments of 1000-1999.

7. There is no difference in the percentage of average daily attendance between school districts with enrollments below 750 and those organized on a countywide basis.

8. There is no difference in the percentage of average daily attendance between school districts with enrollments of 1000-1999 and those organized on a countywide basis.

9. There is no difference in the percentage of students participating in five or more extra-curricular activities between school districts with enrollments below

750 and those with enrollments of 1000-1999.

10. There is no difference in the percentage of students participating in five or more extra-curricular activities between school districts with enrollments below 750 and those organized on a countywide basis.

11. There is no difference in the percentage of students participating in five or more extra-curricular activities between school districts with enrollments of 1000-1999 and those organized on a countywide basis.

12. There is no difference in the percentage of students not participating in extra-curricular activities between school districts with enrollments below 750 and those with enrollments of 1000-1999.

13. There is no difference in the percentage of students not participating in extra-curricular activities between school districts with enrollments below 750 and those organized on a countywide basis.

14. There is no difference in the percentage of students not participating in extra-curricular activities between school districts with enrollments of 1000-1999 and those organized on a countywide basis.

Table 10 summarizes the results of the z-tests used to test null hypotheses six, seven, and eight. The z-test values were not significant at the .05 level for any of the three pairs of groups, therefore, the null hypotheses are accepted.

Table 10

Results of z-Tests of Differences in Average Daily Attendance Between Each Pair of School District Size Groups

Group	Number	ADA	p	q	z
Below 750	5760	5503			
			.95457	.04543	.417
1000-1999	6038	5759			
Below 750	5760	5503			
			.95458	.04542	.443
Countywide	4853	4628			
1000-1999	6038	5759			
			.95372	.04628	.049
Countywide	4853	4628			

$p > .05$

Table 11 summarizes the results of the z-tests used to test null hypotheses nine, ten, and eleven. The z-test values for the first and second pairs of groups were 4.006 and 3.938. Both were significant at the .001 level, therefore, null hypotheses nine and ten were rejected. The paired comparisons showed that the percentage of student participation in five or more extra-curricular activities among schools with enrollments below 750, those with enrollments of 1000-1999, and those organized on a countywide basis was in favor of the school with enrollments below 750 in both instances. There was no significant difference in percentage

of student participation between school districts with enrollments of 1000-1999 and those organized on a countywide basis, therefore, null hypothesis eleven is accepted.

Table 11

Results of z-Tests of Differences in Student Participation in Five or More Extra-Curricular Activities

Group	No.	% Participating	No. Participants	p	q	z
Below 750	399	.302	(120)			
				.2418	.7582	4.006***
1000-1999	362	.177	(64)			
Below 750	399	.302	(120)			
				.2535	.7465	3.938***
Countywide	177	.148	(26)			
1000-1999	362	.177	(64)			
				.1670	.8330	.843
Countywide	177	.148	(26)			

*** $p < .001$

Table 12 summarizes the results of the z-tests used to test null hypotheses twelve, thirteen, and fourteen. The z-test value for the first pair of groups was not significant at the .05 level, therefore, the twelfth hypothesis is accepted. The z-test values for the second and third pairs of groups were 2.4058 and 2.2432. Both were significant at the .05 level, therefore, null hypotheses thirteen and fourteen are rejected. The second paired comparison showed that

the percentage of students not participating in extra-curricular activities between school districts with enrollments below 750 and those organized on a countywide basis was in favor of the countywide units. The third paired comparison showed that the percentage of students not participating in extra-curricular activities between school districts with enrollments of 1000-1999 and those organized on a countywide basis was again in favor of the countywide units.

Table 12

Results of z-Tests of Differences in No Student Participation in Extra-Curricular Activities

Group	No.	% Not Participating		p	q	z
Below 750	399	.154	(61)			
				.1681	.8319	1.1388
1000-1999	362	.185	(67)			
Below 750	399	.154	(61)			
				.1788	.8212	2.4058*
Countywide	177	.237	(42)			
1000-1999	362	.154	(67)			
				.2022	.7978	2.2432*
Countywide	177	.237	(42)			

* $p < .05$

Table 13 summarizes the statewide data on fiscal year 1975 dropouts for the state of Iowa by school district size category. The table shows that as the size category increases

the percentage of dropouts in grades 7-12 also increases. School districts with K-12 enrollments below 750 had the least percentage of dropouts at 1.40 percent. School districts with K-12 enrollments of 3000 and over had the largest percentage of dropout at 4.05 percent.

Table 13

Statewide Dropout Data for Fiscal Year 1975 by School District Size*

Group	Enrollees	Dropouts 7-12	Percentage of Dropouts
Below 750	57,580	808	1.40
750-1499	63,897	1089	1.70
1500-2999	61,801	1496	2.42
3000 and Over	129,989	5266	4.05

*Source: Dropouts Fiscal Year 1975, Guide Service Section, Iowa State Department of Public Instruction, Des Moines, Iowa.

Table 14 summarizes the statewide data on Iowa's 1974 graduates whose status was unknown one year after their graduation from high school by school district size category increases the percentage of graduates whose status is unknown one year after they graduate from high school also increases. School districts with K-12 enrollments below 750 had the least percentage of unknown graduates at 2.99 percent. School districts with K-12 enrollments of 3000 and over had the

largest percentage of unknown graduates at 7.81 percent.

Table 14

Statewide Data on 1974 Graduates Whose Status was Unknown One Year After Graduation*

Group	Graduates	Graduates of Unknown Status	% of Graduates of Unknown Status
Below 750	8576	256	2.99
750-1499	9029	381	4.22
1500-2999	8596	425	4.95
3000 and Over	16079	1255	7.81

*Source: Graduate 1974 One Year After Graduation, Guidance Service Section, Iowa State Department of Public Instruction, Des Moines, Iowa.

Table 15 summarizes the statewide data on Iowa's 1974 graduates that were unemployed one year after their graduation from high school by school district size category. The table shows that as the school district size category increases the percentage of graduates unemployed one year after they graduate from high school also increases. School districts with K-12 enrollments below 750 had the least percentage of unemployed graduates at 1.75 percent. School districts with K-12 enrollments of 3000 and over had the largest percentage of unemployed graduates at 4.95 percent.

Table 15

Statewide Data on 1974 Graduates Who Were Unemployed One Year After Graduation*

Group	Graduates	Graduates Unemployed	% of Graduates Unemployed
Below 750	8576	150	1.75
750-1499	8029	178	1.97
1500-2999	8596	206	2.40
3000 and Over	16079	796	4.95

*Source: Graduate 1974 One Year After Graduation, Guidance Service Section, Iowa State Department of Public Instruction, Des Moines, Iowa.

Table 16 summarizes the statewide data on Iowa's 1974 graduates who were continuing their formal education or training one year after their graduation from high school. The table shows that the largest percentage of graduates that were continuing their formal education or training one year after graduation come from school districts with K-12 enrollments of 3000 and over followed by school districts whose K-12 enrollments were below 750. The lowest percentage of graduates that were continuing their formal education or training one year after graduation come from school districts with K-12 enrollments of 750-1499 followed by school districts with K-12 enrollments of 1500-2999.

Table 16

Statewide Data on 1974 Graduates Who Were Continuing Their Formal Education or Training One Year After Graduation*

Group	Graduates	Graduates Continuing Their Education	% of Graduates Continuing Their Education
Below 750	8576	4154	48.44
750-1499	9029	4238	46.94
1500-2999	8596	4096	47.65
3000 and Over	16079	7920	49.26

*Source: Graduate 1974 One Year After Graduation, Guidance Service Section, Iowa State Department of Public Instruction, Des Moines, Iowa.

Table 17 summarizes the Iowa norms for school averages of eleventh grade composite standard scores on the Iowa Test of Educational Development. The table shows that at the eightieth and ninetieth percentiles school districts with grade 9-12 enrollments below 199 the eleventh grade composite scores of students in those schools were higher than those achieved by eleventh grade students in the other two high school size categories. Their scores were also higher at the seventieth percentile when comparing them to students in schools in the 200-349 size category. These two groups had identical scores at the sixtieth percentile. From the fiftieth percentile down to the tenth percentile students in school districts with enrollments of 200-349 exceeded the scores of

those students in school districts with enrollments of 199 or less. Student scores in school districts with enrollments of 350 or more exceeded the scores of students in the other two size categories from the seventieth percentile down to the tenth percentile.

Table 17

Iowa Norms for School Averages of Eleventh Grade Composite Standard Scores on Iowa Test of Educational Development*

%ile	Grades 9-12 199 or less	Grades 9-12 200-349	Grades 9-12 350 or more	Iowa Average	National Average
90	19.8	19.1	19.2	19.5	19.4
80	19.0	18.6	18.8	18.8	18.5
70	18.4	18.2	18.5	18.4	17.6
60	17.8	17.8	18.2	18.0	16.7
50	17.3	17.5	17.8	17.5	15.9
40	16.9	17.2	17.4	17.1	15.1
30	16.4	16.7	17.1	16.7	14.2
20	15.9	16.1	16.7	16.2	13.2
10	15.1	15.6	16.2	15.6	12.2

*Source: Norms for School Averages on the Iowa Test of Educational Development, Iowa Testing Programs, College of Education, University of Iowa, Iowa City, Iowa, 1975 Revision.

PART II

EQUITY

The findings presented in Part Two are limited to those reported in the Legislator's Education Action Project report, "An Assessment of the Tax and Expenditure Equity of Iowa's School Finance System" which were eluded to in Chapter Two. The LEAP assessment found that only three other states--Hawaii, New Mexico, and Florida--can readily claim more educational equitable school finance systems than Iowa's in regard to educational expenditures.

Restatement of the Summary, Chapter 2, Part V

The LEAP report summarized its tax equity findings in Iowa's School Finance System as follows:

> Over the last decade the state's committment to assuming a larger share of local education has been pushed at a rapid pace. Most change has taken place since 1971 and Iowa now funnels nearly $440 million in direct school aid to local communities. It provides an additional $97 million in state financed property tax credits, much of which has an impact on school finance. Each of these two major policy areas has ameliorated the very high and inequitable property tax burden that prevailed in the early/mid-1960's.
>
> The gradual phasing down of local property taxes (relatively and, of late, absolutely) has been made possible by an expanded use of two major state taxes--those on personal income and sales. Where the property tax dominated in the past, these two now rule the state's fiscal scene. This has elicited the following responses in the overall state/local tax system:

--A reduction in the level, regressive incidence and fiscal disequalization of the local property tax.

--A shift in the incidence of the total tax system toward a proportional distribution of tax burdens.

--A movement toward higher tax revenue elasticity as a result of the increased role of the personal income tax and a decreased role for the property tax.

--A better balance of revenue instruments among the property, sales, and personal income tax to diversify revenue sources.

While progress has been commendable, several "trouble spots" remain. They all relate to the local property tax:

--It remains a major source of revenue and has a high level of burden, inequitable incidence, and is less responsive tax base.

--It continues to hit harder on the farm or rural sectors of the state, often producing burdens twice as great as for the entire state or the non-farm sector.

--Its burden and impact varies widely across the state's counties and school districts, contributing to disequalization on the revenue side of the budget.

--Payment of the tax is not clearly associated with one's capacity to bear the cost of public programs. Its impact tends to hit harder on those with a lower ability-to-pay.

--The state financed tax replacements, while they do lower the overall impact of the tax, do not link, except in a crude way, relief to the need for relief. Thus, many persons receiving tax credits receive them by virtue of being in a certain category (e.g., owners of agricultural land) rather than by being in need of tax relief. (130)

PART III

EFFICIENT OPERATIONS

What constitutes efficiency of school district operations was not generally agreed upon by the members of the Governor's Educational Advisory Committee nor did the writer find any general agreement among literary authorities. The problem was primarily one of not being able to find several authorities that agreed on what criteria should be used for measuring school district operational efficiency. As reported in Part Three of Chapter Two Gordon M. Seely said that "the decentralization of schools into small units of perhaps one hundred students would be most efficient and effective." If this were true an elementary school consisting of grades kindergarten through four would be most efficient and effective with each grade averaging twenty pupils. Using twenty as an average size class for an efficient and effectively operated school district a total enrollment in grades kindergarten through twelve would equal two hundred and sixty. (20 pupils x 13 grades.)

Per Pupil Cost Differences in School District Sample Selection

The state controlled per pupil cost differences of the eighteen school districts that participated in this study ranged from a low of $1185 to a high of $1553 a difference of $368. The average per pupil cost of the twelve school

districts with enrollments below 750 was $1387. The average per pupil cost of school districts with enrollments of 1000-1999 was $1264. The average per pupil cost for the two countywide school districts was $1252. The difference between the average cost of the below 750 districts and the average of the 1000-1999 districts was $123. The difference between the average cost of the below 750 districts and the average of the countywide system was $135. The average difference between the 1000-1999 and the countywide average was $12. The school districts used in this study were those same districts that were chosen to participate in the LEAP study. The LEAP sample was to have reflected the fairly diverse fiscal, educational, and demographic characteristics of Iowa's 449 school districts which are located in the fifteen Area Education Agencies throughout the state.

Shift in School District Organizational Structure Since 1971

In 1970-71 Iowa had four hundred and fifty-two (452) public school districts in existence. In 1976-77 that number was reduced to four hundred and forty-nine--a net reduction of sixty-six hundredths of one percent (.66%) over a period of six (6) years. The state's insistence upon efficiency has not brought about a major shift in its school district organizational structure since 1971.

As reported in Chapter Two, Warren E. Gauerke and Jack R. Childress said, "The thoughtful know that

reorganization alone or dollars alone do not ensure quality education program opportunities and efficiency."

PART IV

EVALUATION

In their 1973-74 report, "The Iowa School Foundation Plan," the State Planning Division of the Office for Planning and Programming reported that the fourth principle (The State should provide for continuous and widely reported evaluation of the local school districts and the state system in its entirety) established by the Governor's Educational Advisory Committee had not yet been accomplished.

Their report quoted the Governor's Educational Advisory Committee statement:

> No provision has been made for evaluation of the results of the education provided for the dollar per pupil cost. The Committee further states that "Output measurements are going to be more important than input criteria and effective methodology for analyzing the quality of the educational product must be developed...(it needs to) become apparent to the general public that positive relationships exist between increased funding, educational quality, and societal improvement. Local and statewide assessment and reporting of results is an obvious necessity."[1]

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[1]Office for Planning and Programming, State Planning Division, The Iowa School Foundation Plan (Des Moines, Iowa: State Government Printing Office, 1973-74), p. 44.

In Chapter Two it was found that the problem of providing meaningful evaluation of local school districts and the State system in its entirety stems primarily from the fact that it is a human act and criteria for doing so are generally not agreed upon.

Restatement of Summary, Chapter 2, Part IV

Thoughts expressed by Joseph C. Payne and Ernest R. House:

> It is essential to the discussion of the anatomy of evaluation to accept the fact that evaluation is a human act whether it be to place a value upon a person, place, or thing, or idea, whether it be a simple or a complex process used to arrive at a conclusion, whether it be with or without structure, biased, objective or unbiased, it is an act by a human . . . Evaluation is not measurement . . . Measurement is a process utilized by the human to evaluate . . . Attainment of the necessary function called evaluation is beset by fears and anxieties created by the past and by rapidity with which change takes place today. However, once attained pride mounts, morale bubbles at its highest level and the effectiveness of a process reaches the apex of clear and distinct impact upon the societal needs and the increasingly complex cultures of the day. No human can resist asking and trying to answer the questions, "Is what is being done effective?" and "Who is effective in getting it done?" (118)

When asked the question, "Can public schools be evaluated?" Ernest R. House says, "Certainly, in terms of any of a dozen sets of standards, many of which are in conflict with one another." (119) He went on to say:

> Can they be evaluated unequivocally? No, there is always a criterion omitted, a sample misdrawn, a statistic misused. Can they be evaluated decisively? Occasionally they can,

> and even favorable, for selected audiences. Can they be evaluated successfully? Yes, but it must be with modest expectations. Can they be evaluated helpfully? Yes. Immersed as the school is in a political context; it is neither possible nor desirable that it be run entirely on deliberate rational grounds. But it can be self-critical part of the time. It can try to assure me as a parent that my five-year-old daughter, whom I sent away to school for the first time this year, is getting good treatment. (120)

Evaluative Information Collected by the State in Order for Citizens to Know the Relative Educational Standing of their District

Quoting from Dr. Robert D. Benton's letter found in Chapter One:

> ...The statute requirements placed on school districts, which form the basis of the majority of the data we collect, do not directly reflect quality. There are many indirect inferences that can be made that would be legitimate but if we were really after "quality" we would be looking at students and student outcomes from the "education" they receive.
>
> We basically collect the data established by the General Assembly for approval of schools--Section 257.25 of the Code. These are minimum requirements, and "approval" in relation to them gives no more than a gross measure of quality, but it does allow the payment of state aid.
>
> I would agree with the following statement in your letter:
>
> > These evaluative measurements of program quality appear to emphasize efficiency in terms of dollars being spent, rather than the quality output that is being obtained by students participating in the various local educational programs.
>
> I have the feeling that the General Assembly is more interested in "dollar efficiency" than student outcomes.

PART V

LOCAL FLEXIBILITY

The Governor's Educational Advisory Committee stated in their discussion of the fifth principle concerning local flexibility that the local citizens should be the final determinant of the priority that they wish education to play in their community provided that this additional support is raised entirely from a local effort tax. The 1973-74 report, "The Iowa School Foundation Plan," written by the State Planning Division of the Office for Planning and Programming stated that the fifth principle was being met through a provision calling for a local referendum for the purpose of providing an additional income surtax if additional spending was desired by a local district. No local district elected to exercise this option as of the 1974-75 school year. In the State Board of Public Instruction's report to the 1975 Session of the Sixty-Sixth General Assembly the following recommendation with its supportive rationale was made:

Income Surtax

Recommendation

Section 442.14 Election for income surtax, should be repealed and following alternatives considered:

Section 442.14. If a school board wishes to spend more than is permitted under sections 442.1 through 442.13, the board may approve the amount financed by a school district property tax, or income tax, or a combination of property tax and income tax.

The added tax rate may be imposed by resolution of the school board, but a reverse referendum may be petitioned.

Rationale

Alternatives are needed to give school districts greater budget flexibility. Alternatives are needed to permit school districts to expand programs, start new programs and in some cases where there are decreased revenue funds, merely help to maintain present programs.[1]

As reported in Chapter Two, Part Three, House File 558 which was passed by the 1975 session of the Sixty-Sixth General Assembly repealed the election for an income surtax in Section 442.14, Code of Iowa. In its place a voter approved limited enrichment amount which could only be used for educational research, curriculum maintenance or development, or innovative programs was adopted. The additional enrichment amount that can be raised by a district is limited to five percent of the state average cost per pupil and shall be raised by a combination of enrichment property tax not to exceed fifty-four cents per one thousand dollars valuation and a school district income surtax not to exceed two and one-half percent.

Table 18 summarizes the information about the schools that have elected to use the additional enrichment amount under the new provisions of Section 442.14, Code of Iowa.

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[1]Iowa State Board of Public Instruction, Report and Recommendations to the 1975 Session, Sixty-Sixth General Assembly (Des Moines, Iowa: Iowa Department of Public Instruction, 1974), p. 1.

The CAL Community School was the first district to elect to use the enrichment amount which went into effect during the 1976-77 school year. The other five school districts will have the additional enrichment revenue available to them beginning with the 1977-78 school year.

Table 18

School's That Have Elected to Use Additional Enrichment Amount*

School District	Date of Passage	Percent Passage	School Year Provision Goes Into Effect	Sept. 10, 1976 Enrollment
CAL Community	Sept. 13, 1975	87	1976-77	338
Stratford Community	Sept. 14, 1976	76	1977-78	341
Woden-Crystal Lake	Sept. 14, 1976	75	1977-78	270
Klemme Community	Jan. 18, 1977	94	1977-78	265
Meservey-Thornton	Jan. 18, 1977	90	1977-78	272
Lincoln Central	Jan. 25, 1977	84	1977-78	291

*Source: Local School District Superintendents.

Under the old income surtax provision no school elected to use it during the three year period that it was in existence. Under the new limited provision which has

been in affect for two years six school districts have elected to use it as of April, 1977.

Chapter 5

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS FOR FURTHER RESEARCH

SUMMARY

This investigation concerned itself with analyzing the current state of affairs of Iowa's public elementary and secondary schools in regard to the five principles developed by the Governor's Educational Advisory Committee in their 1971 report, Improving Education for Iowans. These guiding principles were to provide the basis and support for legislative and executive action taken by the State in meeting Iowa's educational responsibility to its citizens.

The Iowa School Foundation Plan for Financing Education was enacted into law on June 30, 1971, and was to be the State's vehicle for meeting its goals of (1) insuring all students equal access to a quality education, (2) providing equity in financing education, (3) insisting upon efficient operation of local school districts (felt by some to require a major shift in school district organizational structure), (4) providing for continuous and widely reported evaluation of the local school districts and the State system in its entirety, and (5) allowing for local flexibility so that local citizens can be the final determinant of the priority they wish education to play in their community provided that this

additional support is raised entirely from local effort.

Iowa's plan for financing education was developed around the concept of the foundation program advocated by George Strayer and Robert Haig and developed by Paul Mort. Iowa like many other states moved quickly into adopting finance reform as a response to the 1971 landmark court case, Serrano v. Priest, in California. As was quoted in Chapter Two from the writings of Epharim Margolin:

> The constitutional proposition established in Serrano is this: that education is a "fundamental interest" commanding protection for the poor (in other words, it called for fiscal neutrality; that education may not be a function of wealth other than the wealth of the state as a whole). . .
>
> The holding of Serrano is narrow and quite different from what headlines could lead you to believe. The court did not hold property tax unconstitutional. It did not formulate "one kid, one buck" simplistic answers to complex problems of education. It left open almost the entire spectrum of legislative options without intimating any preference either as to source of taxation or as to spending priorities. Wisely, Serrano did not posit answers to problems of financing public education. . .
>
> In terms of spending priorities, Serrano appears to require only equality of access to educational funding. Legislative responses to this challenge could range from the thoughtless allocation of equal funds to meet unequal problems in education to sophisticated approaches to educational needs of children, families, areas, or political subdivisions. In terms of tax sources, the legislature again could run the gamut of solutions from the potentially destructive uniform real property tax to the progressive income tax and to the even more sophisticated combination of property and income tax with local options for additional spending. . .

Shortly after the Serrano decision was handed down in California a similar decision was rendered by the San Antonio, Texas Federal Court in the Rodriguez case. This decision was reversed by the U.S. Supreme Court on March 21, 1973. In the high court's decision they declared:

> The consideration and initiation of fundamental reforms with respect to state taxation and education are matters reserved for the legislative processes of the various states . . . We hardly need add that this Court's action today is not to be viewed as placing its judicial imprimatur on the status quo. The need is apparent for reform in tax systems which may well have relied too long and too heavily on the local property tax. And certainly innovative new thinking as to public education, its methods, and its funding is necessary to assure both a higher level of quality and greater uniformity of opportunity . . . But the ultimate solutions must come from the lawmakers and from the democratic pressures of those who elect them.

Iowa's public elementary and secondary schools have been operating under the State's School Foundation Plan for five years. The plan has reversed Iowa's historical role of allowing local boards of education to determine their local budget priorities and educational needs. During this past decade, the State has used its constitutional authority to a high degree in order to regulate and control the destiny of its public elementary and secondary educational budgets and programs.

The latest movement of the Iowa Legislature in its control over the public schools which is being supported primarily by the Iowa Department of Public Instruction and

urban legislators is to develop legislative proposals that would call for the mandatory reorganization of Iowa's rural school districts. This they say, is being done in an effort to improve quality educational opportunities and increase school district efficiency which have been two of their primary goals under the Foundation program.

The remainder of this section of the summary will be presented in five parts: each dealing with the findings as they pertain to (1) quality, (2) equity, (3) efficiency, (4) evaluation, and (5) local flexibility.

Quality

The first and major task was to determine what constitutes quality education. An unsuccessful request was made to the Iowa Superintendent of Public Instruction to get the State Department's definition of quality education in terms of the data they collect from all local districts for purposes of evaluating and reporting the quality of Iowa's local educational programs. A definition developed by the writer from views expressed by literary authorities was then used to compare the quality of education being offered in different randomly selected rural school districts of varying enrollment size. The definition was operational by the measures of satisfaction. The nominal definition is as follows:

> A school that offers a quality educational program is one that provides an incentive for students to

want to attend and remain in attendance until they graduate.

It is one that produces graduates that are qualified to go on for further schooling or have the required basic skills to become gainfully employed.

It is a school that knows the status of its graduates so that it can evaluate its program in terms of its finished product.

It is a school that promotes and accommodates active student participation in co-curricular activities in order to further develop individual student interests and talents.

It is a school that produces attitudes of satisfaction with the school among its students, parents and teachers on its many different aspects.

It is a school with an educational program that its students are proud of and its parents and community patrons are willing to support.

For the purpose of testing for significant differences in satisfaction, the eighteen participating school districts were divided into three size categories. Group one contained those districts with K-12 enrollments below 750 students. They ranged in size from 191 to 748. Group two contained the districts with student enrollments between 1000-1999. Group three contained the countywide units which are presently in existence in Iowa. Forty-three different factors relating to program input and educational quality output (as was suggested by authorities) were collected on each school district for statistical analysis. Data used in the study were collected from information provided in Department of Public Instruction reports and from direct contact with the school districts. Student, parent, and teacher satisfaction data

were obtained from questionnaire instruments (developed by the researcher to reflect elements of satisfaction as viewed by authorities as being important) which were completed by the three participating population samples within each participating district. The total number of possible respondents in each school district size category was nearly equal. The conventionally accepted levels of probability were used for rejecting null hypotheses and indicating the magnitude of the relationships that were under investigation.

The study provided the following results when tests (ANOVA) were run to determine the differences in the levels of satisfaction by school district size:

> There was a significant difference in the levels of student satisfaction with their school in the three school district size categories. The paired comparisons showed that the difference in student satisfaction among districts with enrollments below 750, those with enrollments between 1000-1999, and the countywide systems was in favor of those schools with enrollments below 750.
>
> There was a significant difference in the levels of teacher satisfaction with their school in the three school district size categories. The paired comparisons showed that the difference in teacher satisfaction between districts with enrollments below 750 and those with enrollments between 1000-1999 was in favor of those districts with enrollments below 750. No significant difference was found to exist in teacher satisfaction between districts below 750 and the countywide systems.

When correlation tests (Pearson Product Moment) were used for correlating school district size to each of the other forty-two factors relating to program input and educational quality output, the following results were obtained:

Significant positive correlations were found between school size and:

1. Number of units offered
2. Teacher salaries
*3. Pupil-teacher ratios

Significant negative correlations were found between school size and:

*1. Student retention rate
2. Cost per pupil
*3. Known status of graduates
*4. Student satisfaction with help from their teachers
*5. Student satisfaction with personal interest shown by teachers
*6. Recognition of students for their school accomplishments
*7. Parent satisfaction with the school
*8. Parent satisfaction with opportunities for children in extra-curricular activities
*9. Parent willingness to vote for increased school taxes.

School districts having larger enrollments displayed the following characteristics: They offered their students more units, paid their teachers higher salaries, and had lower costs per pupil. School districts having smaller enrollments displayed the following characteristics: They had smaller pupil-teacher ratios; greater student retention rates; knew a greater percentage of their graduates' status; had greater levels of student satisfaction with the help they get from their teachers, the personal interest that their teachers showed them, and the recognition that they receive for their school accomplishments; had higher levels of parent satisfaction with the school and with opportunities for children in extra-curricular activities; and had higher levels of parent willingness to vote for increased school taxes.

An argument used by advocates of reorganization is

that large districts offer increased quality educational opportunities because they offer their students more courses. The findings did not indicate a significant correlation between greater number of units offered and graduate productivity in terms of greater percentages of graduates going on for post secondary training or being gainfully employed. Schools offering more units characteristically had higher percentages of drop outs; lower levels of student satisfaction with the help they receive from their teachers and the personal interest their teachers show in them as individuals; lower levels of parent satisfaction with their children's opportunities in extra-curricular activities and parent willingness to vote increased taxes to support their schools.

Schools that offered more courses had larger pupil/teacher ratios. Research has not proven that this characteristic enhances the quality of individualized instructional opportunities for students.

Higher average teacher salaries (another characteristic of schools offering more courses) did not correlate positively with greater graduate productivity or increased student and parent satisfaction.

The argument that reorganization will provide increased quality educational opportunities for students through increased course offerings appears invalid.

Teachers in schools offering fewer courses characteristically provided their students with greater assistance and

personal attention which in turn caused students to be more satisfied with their schools. The writer feels that a more positive learning environment exists in schools where teachers are more willing to assist their students and show them greater personal interest. Greater teacher interest and assistance appears in this study to cause students to be more satisfied with their schools than does increased course offerings.

Equity

The second task of this investigation was to show what progress had been achieved on a statewide basis toward providing equity in financing education under the Iowa School Foundation Plan. The findings presented were limited to those reported in the Legislator's Education Action Project report, "An Assessment of the Tax and Expenditure Equity of Iowa's School Finance System." The LEAP assessment found that only three other states--Hawaii, New Mexico, and Florida--could readily claim more educational equitable school finance systems than Iowa's in regarding educational expenditures. They also found that although several trouble spots remained in relation to the local property tax, commendable progress had been made in the area of tax equity.

Efficiency

The third task was to develop a definition for efficient operations of local school districts and to determine

if the State's insistence upon efficiency had brought about a major shift in school district organization structure since 1971. What constitutes efficiency of school district operations was not generally agreed upon by the members of the Governor's Educational Advisory Committee nor did the writer find any general agreement among literary authorities. The problem was primarily one of not being able to find several authorities who agreed on what criteria should be used for measuring school district operational efficiency.

Alvin F. Bull, a member of the Governor's Committee, remarked in their 1971 report:

> "What does it cost?" is important but incomplete. A necessary companion question is "What are we getting for the money?" Only when both can be answered is it possible to determine cost effectiveness of schools.

Several authorities that were studied associated efficiency with citizen satisfaction with their schools and their willingness to financially support their educational programs.

> Significant positive correlations were found between cost per pupil and:
> 1. Student retention rate
> 2. Average daily attendance
> 3. Student pride in their school
> 4. Parent satisfaction with their school
> 5. Parent satisfaction with opportunities for children in extra-curricular activities
> 6. Parent satisfaction that the school emphasizes the values stressed by the community
> 7. Parent satisfaction with the information they receive about what their school is doing
> 8. Parent satisfaction that the school is putting their tax dollars to good use.

School districts having higher costs per pupil which was a characteristic of smaller schools had fewer students

dropping out of school and fewer students absent from classes. Students in those districts expressed greater pride in their school. Parents in these districts were more satisfied with their school and that their tax dollars were being put to good use. If satisfaction is important for one to receive from his or her school and it can be associated with measuring efficiency, then districts with smaller enrollments and higher costs per pupil can be determined as being reasonably efficient.

The intercorrelation matrix illustrated that there was a significant positive correlation between student satisfaction with their school and parent satisfaction with their school. The more satisfied that students were, the more satisfied were their parents. No significant correlation was found to exist between teacher satisfaction with their school and either student or parent satisfaction.

Gordon M. Seeley said that "The decentralization of schools into small units of perhaps one hundred students would be most efficient and effective."

Using Seeley's one hundred unit figure as a basis for operating an efficient and effective school one would find that most all of Iowa's small rural elementary units (K-6) and secondary units (7-12) would meet that enrollment criteria, and therefore, warrant the maintenance of their existence.

The State's insistence upon local school district dollar

efficiency has not resulted in a major shift in Iowa's school district organizational structure since 1971. The number of local school districts has only been reduced from 452 to 449 in six years. Warren E. Gaurke and Jack R. Childress stated, "The thoughtful know that reorganization alone or dollars alone do not ensure quality education program opportunities and efficiency."

Evaluation

The fourth task was to look at the problem of providing for meaningful evaluation of local school districts and the State system in its entirety and to describe what evaluation information is being collected by the State in order for citizens to know the relative educational standing of their district.

The problems of providing meaningful evaluation are due primarily to the fact that first, it is a difficult human act subject to human error and secondly, criteria for doing so is generally not agreed upon. It was found that in Iowa, the State basically collects the data established by the General Assembly for approval of schools which allows for the payment of state aid, but the information collected gives no more than a gross measure of quality. According to the State Superintendent of Instruction, if the State were really after "quality" they would be looking at students and student outcomes from the "education" they receive. At the present time this is not being done on a statewide basis by local

school districts or for the State system in its entirety.

Local Flexibility

The final task of this investigation was to define local flexibility, to show what flexibility(ies) exist within the Iowa School Foundation Plan, and to what extent Iowa schools have opted to use these flexibility(ies).

It was found that local flexibility has to be associated with local control in budget decision making authority. The Foundation Plan provides only a limited means (the additional enrichment provision) for local citizens to have any budget flexibility in determining the financial priority that they wish education to play in their community. Since September, 1975, six school districts have opted to use this means of flexibility. All six of the districts had actual 1976-77 enrollments of fewer than 350 students and are supporting their state controlled general fund budgets by more than 80 percent local effort.

CONCLUSIONS

The districts used in this investigation were those Iowa districts that were randomly selected for use in the 1976 Legislators' Education Action Project study. The sample selection was said to have reflected the fairly diverse fiscal, educational, and demographic characteristics of the State's public elementary and secondary schools. Only those rural

districts whose enrollments were felt to be affected by reorganization legislation at the time the investigation began were used to represent the small school sample. The other districts that were used were those districts that were considered to become the prevailing size units if such legislative reorganization proposals were to be enacted into law.

The output of an educational program was found to be the best determinant of its quality. Larger district size and greater number of units offered were found to correlate negatively to variables of quality educational output. Smaller district size, fewer units offered, higher cost per pupil, and lower pupil/teacher ratios were found to correlate positively with lower student drop out rates, greater known status of graduates, higher levels of student satisfaction, higher levels of parent satisfaction and greater parent willingness to vote for increased taxes to support their schools. Statewide studies revealed that rural districts in smaller size cohorts have lower drop out rates, higher graduate productivity in terms of employment and graduates going on to postsecondary schools. Little difference was found to exist in standardized student achievement scores--smaller schools scored higher in the upper percentiles and larger schools scored higher in the lower percentiles. The study showed that students in smaller schools had greater involvement in extra-curricular activities.

This investigation supports the thinking that efficiency of school district operations must be determined not only by "What does it cost?" but also by answering the question "What are we getting for our money?" The findings support the concept of decentralizing larger units into smaller units if quality in education is the State's ultimate goal. It would support Gordon Seeley's statement that decentralizing schools into small units of perhaps one hundred students would be most efficient and effective.

This research supports the work reported to the National Institute of Education by Jonathan Sher, educational director of the Center for Community Change, and Rachel Tompkins, associate director of the Citizens' Council for Ohio Schools. They reported that school district consolidation is not justified because none of its selling points--economy, efficiency, equality--hold up under the scrutiny of their research. It supports their recommendation that small schools deserve more attention and the research should be directed at maintaining and improving the existing small schools.[1]

This investigation does not support the Iowa School Budget Review Committee's recommendation of raising the

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[1]Jonathan P. Sher and Rachel B. Tompkins, Economy, Efficiency, and Equality: The Myths of Rural School and District Consolidation (Washington, D.C.: National Institute of Education, U.S. Department of Health, Education and Welfare, July, 1976).

minimum student enrollment size to one thousand in order to provide for adequate size districts. It does not support the concept of countywide units or any other minimum size units that have been advocated in order to provide maximum educational quality and/or efficiency.

In regard to equity, the LEAP study found Iowa to have made commendable progress in both tax and expenditure equity during the past decade through the Foundation Plan. This has been done by allowing substantial increases in allowable growth in per pupil expenditures and state aid to property poor districts while holding down the expenditures and decreasing the amount of state aid to wealthier districts. In the State's effort to meet its goal of providing equity it has fallen to the thoughtless allocation of equal funds to meet unequal problems in education in regard to needs of children, families, areas, or political subdivisions.

Reorganization alone of smaller units into larger units would be another thoughtless move in an attempt to solve the educational and financial problems for the State's public elementary and secondary schools.

Local flexibility under the Iowa Foundation Program at the present time exists only through a limited additional enrichment provision and in reality is nothing more than a symbolic token of providing local citizens with the opportunity to be the final determinant of the priority that they might wish education to play in their community. Local

control is only a slogan in Iowa public elementary and secondary education today.

Minimal progress has been made for providing continuous and widely reported evaluation of local school districts and the State system in its entirety. The citizens of Iowa have no better knowledge of the relative educational standing of their districts and the state system in its entirety today than it did five years ago before the Foundation Plan went into effect. This is due primarily to the fact that input measurements rather than output measurements have been the primary means of evaluating districts in terms of data collected by the State Department of Public Instruction for purposes of determining school district quality and efficiency in operations.

DISCUSSION AND RECOMMENDATIONS FOR FURTHER RESEARCH

Little research has been done in Iowa with regard to evaluating quality in educational programming and efficiency in operations of local districts. Although these were two principles established by the Governor's Educational Advisory Committee, the major thrust of Iowa's research has been in the area of tax and expenditure equity and equalization. This research indicates that commendable progress has been made in those areas when comparing Iowa's current state of affairs to the rest of the nation. The equity problems that appear to remain in existence evolve around the issue

of district wealth determination and developing a clearly defined definition for what one means when he/she speaks of equity. Further research is needed in determining a district's wealth in terms of its ability to pay taxes. A combination of income and property should be considered when doing such studies. The problem of fair and uniform assessment practices throughout the state must be addressed.

When studying efficiency in school district operations the following questions need to be answered: (1) What constitutes an efficiently operated school district? (2) What criteria will be used to evaluate it? (3) What are justifiable variations in educational expenditures? (Is it fair to lump all districts into a similar expenditure pattern with no consideration given to varied community needs, desires, values, and educational expectations?) (4) Are equal expenditures the answer to unequal problems?

This investigation tried to tackle the problem of defining quality in educational programming so that districts of various sizes could be compared. Further refinement of that definition needs to be studied. A common definition which is generally understood and agreed upon by the citizenry of Iowa is needed if meaningful discussions and comparisons are to be made so that all citizens are able to know the relative standing of their district and the state system in its entirety. Meaningful research on the effects of quality education is also needed.

The problem of meaningful evaluation needs to be attacked. Generally agreed upon criteria needs to be established and processes for measuring quality and efficiency need to be developed both on the local and statewide levels. Input into this process needs to come from all segments of the public elementary and secondary school population. The Governor's Educational Advisory Committee membership was heavily larger school oriented with only one member representing school districts of 750 students or less. The school budget review committee that listens to and makes decisions on school district budget problems is also heavily larger school oriented. A greater rural representation is needed on all state appointed advisory and/or decision making committees so that their problems, feelings and recommendations can be heard.

More research needs to be done in regard to getting input from students and parents as to what they feel is necessary and what are desirable goals for our public elementary and secondary schools in Iowa. For too many years professional educators, state and federal officials have told people what they think children need. Instead they should allow citizens to tell them what they want in terms of providing their children with the things that they feel are important.

Further research is also needed in the area of what nourishes public support for education and what turns them

off. Closer working relationships need to be developed between professional educators, administrators, Department of Public Instruction officials, boards of education, parent organizations, teacher organizations, and student organizations in an effort to provide a unified front in support of legislation that effects Iowa's educational future.

A re-evaluation of current state standards for approval of local school districts needs to be done. Are the current standards realistic, necessary, and meeting today's educational requirements? Greater local flexibility is needed in terms of allowing districts to vary their educational programs to meet their local demands.

Alternatives to reorganization need to be studied in an effort to preserve the positive things that are coming out of the smaller rural districts and build upon their positive aspects.

In closing, much more constructive research is needed before anyone will be able to make reasonable and responsible decisions regarding Iowa's present state of affairs in public elementary and secondary education and make improvements if and where they are found to be needed. The impact of declining enrollment on the financial aspect of local district budgets has not been realistically studied nor has the opportunities it provides for expanding the educational offerings to the total community population been looked at conscientiously.

Quality, efficiency, equity, evaluation, and local flexibility must be studied as a package when legislative decisions are to be made. To look at only one aspect of the problem is thoughtless and irresponsible. To many decisions for too long a time have been made on gut feelings, vested interests, personal prejudices, hearsay evidence, disjointed information gathering, and trying to solve one aspect of a problem that has many different facets to look at and to be considered.

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APPENDICES

APPENDIX A

CHAPTERS 257 and 280

CODE OF IOWA

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(pp. 194-206)

APPENDIX B

RESUME OF BASIC PROVISIONS OF IOWA SCHOOL FOUNDATION 1971 PLAN

RESUME OF BASIC PROVISIONS OF IOWA SCHOOL FOUNDATION 1971 PLAN

With 1973 Amendments

HF 654	HF 359
AN ACT ESTABLISHING A STATE SCHOOL FOUNDATION PROGRAM	AN ACT AMENDING THE STATE SCHOOL FOUNDATION PROGRAM
Signed into law June 30, 1971	Signed into law May 16, 1973
1. Requires each school district to levy a 20 mill foundation property tax.	1. No change.
2. Establishes a State Foundation Base which is 70% of the average state cost per pupil, increasing 1% annually to 80%. The district foundation base is the state base or the amount per pupil which the district receives from the foundation property tax, miscellaneous income, and the State School Foundation Aid.	2. Removes miscellaneous income from this formula.
3. Establishes a State School Foundation which is an amount equal to the difference between the amount per pupil of foundation property tax (20 mills) plus miscellaneous income and the state foundation base or the district cost per pupil, whichever is less. The district will receive not less than $200/pupil unless the district's general fund millage rate for school year 72-73 is less than 90% of the millage rate for school year 70-71. Then the district would receive only that amount which would reduce their millage rate by 10%.	3. Removes miscellaneous income from this formula.

HF 654	HF 359
4. Enrollment shall be based on the enrollment of the second Friday of September of each year; shall include resident pupils, out-of-state pupils, pupils for whom tuition is paid to another district, and pupils in special education programs for which tuition is paid.	4. Allows district to base enrollment on either second Friday of September of budget year or second Friday of January of base year, whichever is larger. Removes out-of-state pupils and university lab schools from this certification.
5. Miscellaneous Income is all revenue of a school district general fund budget minus several exclusions.	5. Miscellaneous Income redefined as: All receipts not obtained from state school foundation and guaranteed aid, or property tax. Defines expenditures.
6. District Cost means total expenditures or anticipated expenditures payable from the district general fund exclusive of federal aid.	6. Defines Base year and Budget year. Redefines District Cost and District Cost per pupil in terms of the Base and Budget year rather than a school year.
7. District Cost per pupil is the district cost per pupil of current year plus the allowable growth, except where the current district cost per pupil exceeds 110% of State cost per pupil. Must then be reviewed by the School Budget Review Committee.	
8. Allowable growth is the percent of increase of the second and third years of the most recent three years for which accurate figures are available for the total adjusted state general fund revenues and adjusted statewide assessed valuation, all divided by four, then converted to dollars per pupil. Limited to $40 for 72-73, $48 for 73-74, and $51 for 74-75.	8. Repealed dollar restrictions for school years 72-73, 73-74, and 74-75. Established allowable growth at 5% for 72-74, limited to a maximum of 5% for 74-75. Allows low cost per pupil districts to use a growth rate that is 125% of state growth rate, if district cost per pupil is lower than state cost per pupil, to bring it up only to state cost per pupil.

HF 654	HF 359
9. Set state cost per pupil at $920 for 1971-72, and the preceding years state cost per pupil plus allowable growth for succeeding years.	9. Change state cost per pupil to $903 for 72-73. Same formula for succeeding year.
10. Sets maximum millage levy at 1970-71 level.	10. Allows excess millage as authorized by the School Budget Review Committee.
11. Established a guaranteed state aid fund to aid school districts in which the maximum millage rate plus miscellaneous income and state foundation aid does not meet the actual or maximum district cost, whichever is less. To terminate in 1977.	11. Excludes miscellaneous income.
12. Establishes a School Budget Review Committee, defines its duties, membership, etc.	12. Redefines duties, expands authority and budget of the School Budget Review Committee.
13. Allows school district to exceed its maximum district cost by submitting it for approval to the School Budget Review Committee, which may authorize an additional millage or supplemental state aid or the board shall submit a school district income surtax proposal to voters every five years if to be continued.	13. Changes the "shall" to "may" submit the income surtax proposal to the voters.
14. Limits maximum millage reduction to 10% of previous years millage rate except where the rate raises more revenue than the district needs to meet its cost, then the reduction may be greater up to the point where state aid could be required.	

APPENDIX C

CHAPTER 442

CODE OF IOWA

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APPENDIX D

QUESTIONNAIRE INSTRUMENTS AND CORRESPONDENCE TO SCHOOLS

STUDENT SATISFACTION QUESTIONNAIRE

Dear 11th Grade Student,

You are being asked to participate in an attitude survey concerning your feeling of satisfaction with this school. Please put a check ✓ before the answer which best reflects your feeling of satisfaction with regard to each of the nine different questions being asked. Be sure to check only one answer to each question. After you have finished the questions on the questionnaire, please wait for your teacher to collect them. You will be given another questionnaire to take home for your parents to fill out concerning their feelings of satisfaction with this school. Please have your parents fill it out this evening and you are to return it to your teacher in this class tomorrow. Thank you for your assistance in participating in this survey and for taking home a questionnaire for your parents to complete. It is greatly appreciated. Please complete the personal information that is being asked before you start answering the questions concerning your satisfaction with this school. You are not being asked to put your name on this questionnaire.

Sex: _____Male _____Female

Years of attendance at this school: ___1 ___2 to 5
___6 to 10 ___Always

Number of extra-curricular activities you participate in:
___0 ___1 ___2 ___3 ___4 ___5 or more

1. How satisfied are you that this school will prepare you for what you plan to do after you graduate from high school?

___Very satisfied ___Somewhat dissatisfied
___Somewhat satisfied ___Very dissatisfied

2. How satisfied are you that you can get help from your teachers if you have a problem with your studies?

___Very satisfied ___Somewhat dissatisfied
___Somewhat satisfied ___Very dissatisfied

3. How satisfied are you that your teachers are interested in you as an individual person?

___Very satisfied ___Somewhat dissatisfied
___Somewhat satisfied ___Very dissatisfied

4. How satisfied are you with your opportunities to make friends at this school?

___Very satisfied ___Somewhat dissatisfied
___Somewhat satisfied ___Very dissatisfied

5. How satisfied are you with the extra-curricular activity program in this high school?

___Very satisfied ___Somewhat dissatisfied
___Somewhat satisfied ___Very dissatisfied

6. How satisfied are you with the recognition you receive for accomplishments you make at this school?

___Very satisfied ___Somewhat dissatisfied
___Somewhat satisfied ___Very dissatisfied

7. How satisfied are you that you are getting as good an education here as you would get by attending any other public school in Iowa?

___Very satisfied ___Somewhat dissatisfied
___Somewhat satisfied ___Very dissatisfied

8. How satisfied are you that students are involved in making decisions that affect what happens at this school?

___Very satisfied ___Somewhat dissatisfied
___Somewhat satisfied ___Very dissatisfied

9. How proud are you of this school?

___Very proud ___Not very proud
___Somewhat proud ___Not proud at all

PARENT SATISFACTION QUESTIONNAIRE

Dear Parent,

You and your son or daughter are being asked to participate in a school satisfaction attitude survey study. Your child completed a questionnaire in school today and you are being asked to complete this questionnaire this evening and return it with your child when he or she goes to school tomorrow. You are not being asked to identify yourself on the questionnaire.

Please put one check before the answer which best reflects your feeling of satisfaction to each of the eleven different questions being asked. Answer each question. If there is one that you are not sure about, please check the answer which you think best expresses your feeling. Thank you for your assistance in participating in this survey. It is greatly appreciated.

1. How satisfied are you that your school district is providing your child or children with a good education?

___Very satisfied ___Somewhat dissatisfied
___Somewhat satisfied ___Very dissatisfied

2. How satisfied are you that your school provides children with opportunities to meet with success?

___Very satisfied ___Somewhat dissatisfied
___Somewhat satisfied ___Very dissatisfied

3. How satisfied are you that your children have the opportunity to participate in your school's extra-curricular activity program?

___Very satisfied ___Somewhat dissatisfied
___Somewhat satisfied ___Very dissatisfied

4. For those students who participate in your school's extra-curricular program, how satisfied are you with the recognition they receive?

___Very satisfied ___Somewhat dissatisfied
___Somewhat satisfied ___Very dissatisfied

5. How satisfied are you that your school emphasizes the overall values that are stressed by your community?

___Very satisfied ___Somewhat dissatisfied
___Somewhat satisfied ___Very dissatisfied

6. How satisfied are you that parents are involved in making decisions that affect your school district?

___Very satisfied ___Somewhat dissatisfied
___Somewhat satisfied ___Very dissatisfied

7. How satisfied are you with the information you receive concerning what your school is doing?

___Very satisfied ___Somewhat dissatisfied
___Somewhat satisfied ___Very dissatisfied

8. How satisfied are you that your tax dollars are being put to good use by your school district?

___Very satisfied ___Somewhat dissatisfied
___Somewhat satisfied ___Very dissatisfied

9. How satisfied are you with the size of your school district in terms of the number of students enrolled?

___Very satisfied ___Somewhat dissatisfied
___Somewhat satisfied ___Very dissatisfied

(9a) If you marked either indicating dissatisfaction, please indicate the reason for this dissatisfaction.

___Too many students are enrolled
___Too few students are enrolled

10. Would you be willing to vote to increase your local taxes if your school district said that it needed more money to support its present educational program?

___Yes, definitely ___I don't think so
___I think so ___Definitely not

11. How important is the school to the social life of your community?

___Very important ___Of little importance
___Of some importance ___Of no importance

TEACHER SATISFACTION QUESTIONNAIRE

Dear Teacher,

The eleventh grade students, their parents, and the teachers of your school district are being asked to participate in a school satisfaction attitude survey study. The eight questions that you are being asked to answer deal with your satisfaction with regard to your present teaching position in this district. Please check one answer to each of the eight questions which best reflects your feelings of satisfaction. After you have completed the questionnaire, please return it to your principal. Thank you for your assistance in participating in this survey. It is greatly appreciated.

(Please check the appropriate blanks as they pertain to you)

___Male ___Female

Teaching level: ___Elementary ___Junior High ___Senior High

Teaching experience in this district: ___1st year

___2 to 5 years ___6 to 10 years ___11 or more years

Degree status: ___Non-degreed ___B.A. ___M.A. ___Ph.D.

1. How satisfied are you with the adequacy of teacher salaries in this school district?

___Very satisfied ___Somewhat dissatisfied
___Somewhat satisfied ___Very dissatisfied

2. How satisfied are you with the amount of instructional supplies and equipment that is provided to the teachers in this school district?

___Very satisfied ___Somewhat dissatisfied
___Somewhat satisfied ___Very dissatisfied

3. How satisfied are you with the working conditions for teachers in this school (e.g. class size, preparation time, teaching assignments, scheduling, non-teaching duties, etc.)?

___Very satisfied ___Somewhat dissatisfied
___Somewhat satisfied ___Very dissatisfied

4. How satisfied are you with your inter-personal relationship with other employees in this school district?

___Very satisfied ___Somewhat dissatisfied
___Somewhat satisfied ___Very dissatisfied

5. How satisfied are you with the status of teachers in this community?

___Very satisfied ___Somewhat dissatisfied
___Somewhat satisfied ___Very dissatisfied

6. How satisfied are you with your opportunities for professional growth and development in this school district?

___Very satisfied ___Somewhat dissatisfied
___Somewhat satisfied ___Very dissatisfied

7. How satisfied are you with your involvement in making decisions that affect this school?

___Very satisfied ___Somewhat dissatisfied
___Somewhat satisfied ___Very dissatisfied

8. How satisfied are you with the recognition you receive for achievements you make in your work?

___Very satisfied ___Somewhat dissatisfied
___Somewhat satisfied ___Very dissatisfied

April 26, 1976

To:

From: James Jess, Superintendent
CAL Community School
Latimer, Iowa 50452

Subject: Instructions for Administering the Teacher Satisfaction Questionnaires

First off I wish to thank you for your cooperation in assisting me with this study that I am doing as part of my doctoral dissertation requirement for Drake University. It is greatly appreciated and I want you to feel free to contact me for any assistance that you may need in completing a future study that you might undertake.

The questions and the questionnaire itself has purposely been kept short in hopes of a greater response from your teaching staff. I have included one _____ questionnaire for each teacher under your jurisdiction. I am suggesting that the questionnaires be distributed through teacher mail boxes if they are available. They are being asked to return them to you so that you can return them to the person in your system that will send all the completed teacher, junior student, and parent questionnaires back to me. I am hoping for a large response of completed questionnaires and would appreciate any help you might give me in getting that type of response.

Thank you again for your assistance and cooperation in this study project.

April 26, 1976

To:

From: James Jess, Superintendent
CAL Community School
Latimer, Iowa 50452

Subject: Distribution, Collection, and Mailing Instructions for Returning Completed Teacher, Student and Parent Questionnaires

Thank you again for your cooperation in allowing your school to participate in the school satisfaction study that I am doing as part of my doctoral dissertation requirement for Drake University. I am pleased that twenty of the twenty-four schools I contacted agreed to participate. I again wish to express my willingness to be of assistance to you in any future study you might do.

I have included in this packet of materials a copy of the form you returned to me giving the number of questionnaires you needed for each teacher by building and the number of juniors in your district. The materials are counted and separated according to the information you gave me. A letter of instructions is included for each person in your district that will be in charge of administering and collecting questionnaires to the various groups.

I have included self-addressed, stamped envelope(s) for mailing the materials back to me. If postage should be more than I have allowed, please let me know and I will send you the difference. The envelope(s) are numbered for the purpose of identifying which schools have returned their materials. As I stated before, district names are not being used in reporting the final results of the study.

I would like to have all the questionnaires back by no later than May 10 as I am scheduled into the computer center shortly after that date and will need time to transfer the information onto computer cards.

Thank you again for your willingness to assist me in this study project.

April 26, 1976

To:

From: James Jess, Superintendent
CAL Community School
Latimer, Iowa 50452

Subject: INSTRUCTIONS FOR ADMINISTERING STUDENT AND PARENT SATISFACTION QUESTIONNAIRES

First off I wish to thank you for your cooperation in assisting me with this study that I am doing as part of my doctoral dissertation requirement for Drake University. It is greatly appreciated and I want you to feel free to contact me for any assistance that you may need in completing a future study that you might undertake.

The instructions for administering the student questionnaires to your junior class members are really quite simple. I would like you to please pass out one _____ student questionnaire to each member of the junior class that you are in charge of and ask them to wait until you have read the directions out loud before they begin. The directions for completing the form appear at the top of their questionnaire where it says "Dear 11th Grade Student,". I have stapled a copy of the student and parent questionnaires to this sheet for your information. You should have one student and one parent questionnaire for each junior under your jurisdiction. Be sure that they fill out the personal information called for before they start on the nine questions. Please emphasize to them that it is important that they check only one answer to each question and that they answer each of the nine questions giving the answer that best reflects their feeling.

After everyone has completed the student questionnaire, please collect them. They are not being asked to sign them. When all the student questionnaires are collected, hand out one _____ parent questionnaire to each student. Read the directions to them that are on the parent questionnaire where it says "Dear Parent". Emphasize to the students that they are to take the parent questionnaire home with them after school today, have their parents fill it out this evening, and return it to you tomorrow. If they are not all back on the next day, remind them again to get it into you. After the second day take all the parent questionnaires that have come back to you, along with the student questionnaires, and return them to _____
who will in turn send them back to me.

The questions and the questionnaires themselves have purposely been kept short in order to hopefully provide for a greater response. I would also like to ask you to remind your fellow colleagues to complete their teacher satisfaction questionnaires and return them to the designated person.

Thank you again for your assistance and cooperation in this study project.

APPENDIX E

SCHOOL DISTRICT DATA COLLECTION TABLES

Table 19

School District Input Data

School District	K-12 Enrollment	Number of High School Units Offered	1976-77 Cost Per Pupil	1975-76 Average Teachers Salary	1975-76 Average Yrs. Teacher Experience	1975-76 Pupil/teacher Ratio
1	3019	68.0	$1252	$11,724	14	19.2
2	1930	65.5	1252	11,914	12	18.3
3	1835	65.0	1252	11,476	13	17.6
4	643	57.5	1335	10,006	11	13.9
5	1035	54.2	1269	12,068	13	18.5
6	653	51.5	1316	11,393	11	17.9
7	1952	49.1	1185	10,185	10	20.2
8	401	49.0	1536	10,188	8	12.8
9	341	48.5	1436	10,167	12	15.0
10	737	48.5	1337	11,854	13	16.8
11	1121	48.0	1348	12,077	14	17.7
12	509	47.3	1219	9,423	12	18.5
13	465	43.0	1553	10,421	9	16.7
14	748	40.0	1335	11,767	12	18.1
15	501	38.5	1318	10,313	12	14.1
16	330	35.0	1252	11,173	15	16.2
17	191	33.0	1518	7,673	8	11.3
18	241	31.0	1490	9,097	10	11.6
Average 750	480	41.0	1387	10,627.73	11.1	15.2
Average 1000-1999	1510	54.2	1264	11,749.38	12.3	18.7
Average County	2427	66.5	1252	11,626.41	13.5	18.4

Table 20

School District Output Data

School District	% of 1974 Graduates Going on to School	% of 1974 Graduates Occupied	% of 1974 Graduates of Known Status	% of students 1975 (grades 7-12) who Stayed in School	1974-75 Average Daily Attendance
1	47.83	99.52	93.24	96.23	95.2
2	55.33	100.00	100.00	95.90	96.4
3	35.07	98.51	91.79	97.53	95.6
4	41.18	98.04	100.00	97.15	94.9
5	58.67	100.00	98.67	97.75	96.3
6	54.17	100.00	100.00	99.70	95.5
7	49.30	89.44	87.32	97.60	94.8
8	78.85	100.00	100.00	99.05	96.0
9	54.05	100.00	100.00	98.83	96.1
10	56.36	98.18	100.00	98.43	96.4
11	62.82	98.72	100.00	98.94	96.5
12	24.34	97.56	97.56	98.16	93.9
13	33.33	96.30	92.59	99.57	95.5
14	53.97	100.00	100.00	98.34	95.4
15	41.03	100.00	100.00	97.35	96.0
16	32.14	100.00	92.86	95.49	94.6
17	40.00	100.00	95.00	100.00	96.5
18	47.37	100.00	100.00	99.02	96.6
Average 750	48.04	99.13	98.70	98.36	95.6
Average 1000-1999	55.28	96.41	95.73	97.47	96.0
Average County	42.82	99.12	92.67	96.74	95.4

Table 20 (Continued)

School District	% Participation in One or More Extra-Curr. Activities (Junior Class)	Total Student Satisfaction Score	Total Teacher Satisfaction Score	Total Parent Satisfaction Score
1	75.6	.44	1.01	.69
2	72.0	.32	.79	.73
3	88.9	.88	.63	.89
4	75.7	.71	.27	.58
5	89.0	.49	.31	.98
6	74.5	.73	1.25	1.01
7	85.6	.38	.71	.27
8	89.3	1.11	1.31	1.55
9	95.3	.64	.61	.43
10	96.6	.72	.90	1.10
11	78.9	.78	.71	.88
12	84.8	.69	.99	.89
13	76.2	.43	.76	1.23
14	78.3	.70	.95	.92
15	84.0	.08	.33	.55
16	66.7	.95	.88	1.16
17	100.0	.85	-.23	1.33
18	70.6	.55	1.10	.76
Average 750	84.6	.68	.80	.93
Average 1000-1999	81.5	.46	.65	.81
Average County	76.3	.44	.85	.70

Table 21

Average School District Student Response to Individual Questionnaire Items

School District	Items 1	2	3	4	5	6	7	8	9
1	.63	.44	.06	1.29	.57	.16	.84	-.65	.62
2	.37	.33	-.31	1.02	.71	.05	.60	-.47	.60
3	.89	1.22	.33	1.11	1.00	.89	.56	.67	1.22
4	.61	1.05	.39	1.32	.49	.61	.85	.10	.93
5	.56	.71	.26	1.00	.49	.47	.85	-.37	.47
6	.63	.98	.51	1.28	.93	.42	.65	-.02	1.23
7	.55	.45	-.05	1.22	.38	.19	.58	-.65	.74
8	1.14	.89	.43	1.50	1.50	1.25	1.39	.11	1.82
9	.62	.62	.19	1.48	.76	.62	1.42	-.76	.81
10	.48	.79	.54	1.62	1.14	.45	.52	-.29	1.26
11	.41	1.20	.58	1.49	.85	.61	1.25	-.25	.89
12	.04	.98	.59	1.30	.54	.63	.59	.04	.83
13	.15	.73	.00	1.08	.50	.50	.77	-1.04	1.19
14	.41	1.17	.65	1.59	.96	.44	.85	-.57	.80
15	-.08	.36	.04	1.16	-.12	.08	-.08	-1.00	.32
16	.91	1.52	1.14	1.38	.43	1.00	1.10	-.10	1.19
17	.61	1.13	.78	1.39	.91	.61	.61	.26	1.35
18	.53	1.18	.59	.53	.47	.65	.29	-.24	.94
Average 750	.48	.95	.49	1.36	.76	.58	.72	-.26	1.06
Average 1000-1999	.48	.62	.07	1.18	.58	.29	.77	-.47	.66
Average County	.63	.48	-.07	1.28	.59	.16	.83	-.58	.62

Table 22

Average School District Teacher Response to Individual Questionnaire Items

School District	Items 1	2	3	4	5	6	7	8
1	.59	1.41	.90	1.43	1.15	1.01	.63	.93
2	1.10	1.30	.62	1.18	.80	.67	.12	.53
3	1.13	1.06	.39	.78	.37	.55	.28	.48
4	.28	.31	.75	.94	.25	.06	-.13	-.34
5	.57	-.04	.19	1.22	-.11	.24	-.04	.48
6	1.20	1.47	1.00	1.40	1.33	1.33	1.20	1.07
7	1.44	1.06	.14	1.13	.73	.35	.25	.55
8	1.43	1.71	.86	1.36	1.64	1.00	1.04	1.43
9	.41	.77	.91	1.46	.14	.50	.46	.23
10	.86	1.63	.91	1.43	.60	.63	.40	.71
11	.57	1.17	.72	1.37	.43	.46	.56	.43
12	1.40	1.37	.67	.93	.60	.93	.87	1.13
13	.65	1.75	.30	1.30	.60	.40	.15	.95
14	1.48	1.56	.72	1.12	1.12	1.12	.16	.28
15	-.04	.30	.59	1.19	.30	.11	-.11	.30
16	1.46	1.18	.64	1.14	.77	.55	.68	.64
17	-1.25	.50	.13	.88	.00	-1.13	-1.13	.13
18	.61	1.67	1.61	1.50	1.33	.72	1.56	1.28
Average 750	.82	1.20	.78	1.22	1.68	.59	.47	.65
Average 1000-1999	.99	.93	.40	1.21	.52	.44	.22	.51
Average County	.79	1.30	.73	1.21	.61	.86	.52	.78

Table 23

Average School District Parent Response to Individual Questionnaire Items

School District	Items 1	2	3	4	5	6	7	8	9	10	11
1	1.09	.91	.80	.63	.85	-.02	.50	.52	1.17	-.22	1.30
2	.96	.89	1.15	.63	.70	.22	.59	.30	1.30	-.33	1.59
3	.63	.88	1.25	1.50	.75	.13	1.50	.88	1.25	-.50	1.50
4	.74	.59	1.18	1.07	.59	-.96	.44	.04	1.04	.30	1.33
5	1.89	1.00	1.11	.59	.93	.33	.70	.70	1.04	.67	1.78
6	1.26	1.00	.90	.79	.90	.79	1.37	.74	1.42	.42	1.47
7	.94	1.06	1.11	1.17	1.00	.17	.72	-.11	1.11	-.67	1.61
8	1.74	1.52	1.57	1.39	1.61	1.35	1.78	1.44	1.65	1.35	1.65
9	.75	-.13	1.00	.56	.44	-.75	.00	.63	1.13	.19	1.50
10	.75	1.50	1.50	1.00	1.13	1.25	1.25	.75	1.25	.50	1.25
11	1.28	1.17	1.06	.89	.78	.22	.72	.44	1.17	.33	1.61
12	1.10	.86	1.29	.19	.76	.57	1.05	.76	1.57	.10	1.48
13	1.00	1.33	1.50	1.50	1.33	1.00	1.50	.67	1.67	1.17	1.50
14	1.56	.93	1.29	.93	.86	.14	.71	.57	1.64	.14	1.36
15	.94	.63	1.25	.63	.50	-.38	.31	-.31	.88	.13	1.50
16	1.41	1.29	1.35	1.00	1.35	.88	.88	1.29	1.53	.41	1.41
17	1.22	1.22	1.78	1.56	1.56	1.34	1.56	1.44	.44	.89	1.56
18	1.10	1.20	1.10	.20	.90	.30	1.40	1.00	.20	-.30	1.20
Average 750	1.09	.94	1.26	.88	.95	.34	.96	.71	1.25	.43	1.45
Average 1000-1999	1.03	1.01	1.11	.78	.84	.24	.68	.33	1.18	.03	1.66
Average County	1.02	.91	.86	.72	.83	.00	.61	.57	1.13	-.26	1.33